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ABSTRACT

Objectives of the conference presented in these proceedings were to (1) clarify and describe part D (Vocational Education Amendments of 1976) exemplary project anticipated results, (2) discuss dissemination strategies for implementing these results, and (3) develop state and local strategies for encouraging the spread of these results from one site to another. Major content consists of conference papers covering the following topics: changes in the future for experiential learning, implementing experiential learning, Illinois' approach to linking research and development with dissemination, factors in the dissemination of part D innovations, using state and regional agencies in Florida to implement innovations, the role of teacher educators in the dissemination of part D projects, dissemination--magnifying the research and development dollar, strategies for the national dissemination of project results, and research and development implications in the legislation for state and national programs. (BL)

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INCREASING THE IMPACT
OF INNOVATIVE PROJECTS
CONFERENCE PROCEEDINGS

Editors:

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U.S. DEPARTMENT OF HEALTH,
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The Center for Vocational Education
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Points of view or opinions expressed at this conference are those of the speakers only. No official endorsement or support by The Center for Vocational Education, the Ohio Department of Education, Division of Vocational Education, or the U.S. Office of Education is intended or should be inferred.

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FOREWORD

Vocational education exemplary projects need to be disseminated and utilized in more effective and efficient ways. This need was emphasized in the Vocational Education Amendments of 1976 (Public Law 94-482) and in the discussions at the conference reported here. Communication linkages between exemplary projects and potential users should be established. They should be formal and direct, and should facilitate the trial use of exemplary project results.

The purpose of this conference was to increase the ability of vocational education leaders to disseminate Part D exemplary project results. This national conference provided a setting for interaction among leaders of Part D exemplary projects at the state and local levels, cooperative education and work experience state consultants, teacher educators, developers of experience-based career education, and specialists in innovation dissemination. The conference provided for an exchange of information through speakers, group discussants, symposium participants, and exhibitors. The participants from fifty states plus the District of Columbia and Puerto Rico brought a rich mix of different points of view about exemplary projects which resulted in a lively discussion of Part D project priorities. The participants engaged in the planning of dissemination strategies for use in their home settings.

We appreciate the assistance of the ten USOE Regional Offices as well as the state departments of vocational education in making the conference possible. We wish to specifically acknowledge the assistance received from members of the planning committee: Clayton D. Carlson, Part D Project Director, Watertown Independent School District No. 1, Watertown, South Dakota; James Dasher, Supervisor of Exemplary Programs, Division of Vocational, Technical, and Adult Education, State Department of Education, Little Rock, Arkansas; Homer E. Edwards, Director, Vocational Education Programs, Region V, U.S. Office of Education; Paula Hocken, Distributive Education Teacher Coordinator, Trevor G. Browne High School, Phoenix, Arizona; Ronald D. McCage, Director, Research and Development Section, Department of Adult, Vocational and Technical Education, Illinois Office of Education, Springfield, Illinois; Bernard C. Nye, Assistant Director, Distributive Education Services, Division of Vocational Education, Ohio Department of Education, Columbus, Ohio; Alex Perrodin, Associate Dean-Instruction, College of Education, University of Georgia, Athens, Georgia; Peter C. Rein, Director, Division of Work-Study Education, St. Louis Public Schools, St. Louis, Missouri; and John A. Wanat, Director, Cooperative Vocational-Technical Education, New Jersey State Department of Education, Trenton, New Jersey.

In addition to the editors of these conference proceedings, Joan Jones, James V. Bina, and William L. Hull, we extend appreciation to Darrell L. Parks, Assistant Director, Division of Vocational Education, Ohio Department of Education; Daryl E. Nichols, Program Officer, Vocational and Technical Education, Region V, U.S. Office of Education; Joyce D. Cook, Part D Program Coordinator, U.S. Office of Education; Marion R. Craft, Program Officer, Cooperative Education, Work Experience, and Work Study Programs, U.S. Office of Education; Lawrence Braaten, Chief, Demonstration Branch, BOA/EDRD, U.S. Office of Education; David H. Hampson, Chief, Division of Career Exploration, Education and Work Group, National Institute of Education, for their assistance in the planning and conducting of this national conference.

Robert E. Taylor
Executive Director
The Center for Vocational Education

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INTRODUCTION

The papers contained in this publication were presented at the conference on Increasing the Impact of Innovative Projects, conducted at the Sheraton-Fort Worth Hotel in Fort Worth, Texas, on February 23-25, 1977. The papers addressed substantive issues of interest to exemplary project directors as well as process concerns. Eugene L. Dorr addressed the need for improvement in programs providing vocational experiences for students. Dissemination process information was contained in the Ferqueron, McCage, and Boldrey papers among others. The dissemination of project results from one school to another was discussed by Duane R. Lund, a member of the National Advisory Council on Vocational Education. A background paper by Joyce D. Cook set the stage for discussions among conference participants on the formulation of dissemination strategies. Lawrence Braaten reviewed vocational education legislation relevant to exemplary programs. Joel H. Magisos suggested ways to obtain broader dissemination of project results. The role of teacher educators in the dissemination of project results was addressed by Rutherford E. Lockette.

The objectives of this conference were (1) to clarify and describe the Part D exemplary project anticipated results, (2) to discuss dissemination strategies for implementing these results, and (3) to develop state and local strategies for encouraging the spread of these results from one site to another. These objectives were met in a variety of ways including the presentation of papers. Other activities included small group discussions led by national authorities in selected areas of interest to conference participants, the generation of dissemination strategies by USOE regions, the display of project results, and the development of training materials. The outcomes of the conference are summarized in the project final report.

The Center is indebted to a number of persons for making this conference a success. Planning committee members recommended the conference program. They represented state exemplary project coordinators, local project directors, vocational teachers, teacher educators, research coordinating unit directors, local directors of work study, state directors of cooperative vocational-technical education, and personnel from the region V and national Office of Education. The National Institute of Education provided discussion leaders for small group sessions on experience-based career education, a priority topic for this year's exemplary projects. Other topics included in these sessions were: meeting requirements for achieving sex fair guidance and career opportunities, examining the legal implications of non-paid experiential learning, and using evaluative information to persuade others to try exemplary project results. Papers were not prepared for these small group discussions.

This conference represents one of a series of projects conducted by The Center for Vocational Education in a continuing program to study and implement change processes to improve vocational education. A companion document to this publication is the project final report, *Increasing the Impact of Federally-Administered Vocational Education Exemplary Projects*, published by The Center for Vocational Education, Leadership Training Series No. 52.

EXPERIENTIAL LEARNING: SOME CHANGES FOR THE FUTURE

Eugene L. Dorr

What a wonderful opportunity it is to address you this morning. As a group, you represent the change agent leadership in vocational education and you are directing the programs for innovation that help people. As we face a number of critical education needs in this country, your personal involvement as change agents can be likened to "risk capital" in the business and industrial sectors of our economy. Your "risk capital" is providing programs for people. The Reverend Jesse Jackson states it best:

People need people. People will not merely trust institutions. People need people to trust. There is no shortcut to having men and women in high places with integrity, and intelligence, and involvement, and compassion.

People need more hope than they need help. If people get hope, they can help themselves. If people have help and don't have hope, they won't even walk through the door.

So today, this opportunity is to talk with people who can provide the "hope" Jesse Jackson was talking about. We in education must dare to be different. Not for difference's sake, but different so that through education we can provide the structure, the alternatives, and the brainpower to help solve some of the really tough people problems that must be faced.

Here, then, are some observations that your deliberations can address:

- A concern about *youth* employment.
- The school-college responsibility in youth unemployment.
- A human resource policy for schools and colleges.

I have purposely, for this presentation, zeroed in, on the needs of youth (age sixteen to twenty-four) and activities that tie in the community with the education process and product. I acknowledge and note that there are other age groups and other programs that could be discussed. However, I feel the needs of youth are paramount.

Let's put the first spotlight on *A Concern About Youth Unemployment in This Country*. Youth unemployment is one of the most sensitive and explosive issues facing us. This is especially true in the large cities of our land. Key Indicators of the failure of society to properly prepare youth to be adults are numerous. Let me list four:

- the rising suicide rate among this age group
- the number of youths running away from home
- the increase in juvenile crime
- the high rate of unemployment

Young persons have the highest unemployment rate of any age group in our population. Senator Jacob Javits of New York stated on the Senate floor on January 11, 1977, that joblessness among young people has reached "crisis proportions" with youths making up half of the total number of unemployed. Joblessness among black youths in some city ghettos is as high as 60 percent. Total youth unemployment is now 18.9 percent. Even if the economy improves, however, "the teenage unemployment rate will remain much higher than the adult rate for the foreseeable future, in the absence of specific programs," Javits said.

The less obvious part of this, however, is the number of young persons who become so discouraged at not finding a job that they have withdrawn from actively searching for a job. Coupled with the millions in middle school and high school who need work-related experiences to help prepare them for life and work and are *not* getting them. Consider also that about three and a half million teenagers are employed full time but are not attending school. Many in this particular group (working but not attending school) have more problems on the job as well as fewer career advancement possibilities than other workers.

A number of groups is currently giving special attention to this particular concern. The National Child Labor Committee, in their 1976 publication, "Rite of Passage: The Crisis of Youth's Transition from School to Work," states:

Youth are expected to assimilate themselves into adult society, but they are denied reasonable, sensible, and appropriate means for doing so.

The ideology which gives lowest priority to young people is so deep-seated in the culture that even young people accept their disadvantaged status.

Young people need real, meaningful work so that they can acquire the experiences that are a critical component of career development. Ability to take responsibility, ability to work with others, and other components of maturity requisite for such roles as citizenship and parenthood, as well as employability, are effectively imparted through work experience. An inflexible pattern of "learn first—work later" has been shown to be the least efficient way to impart them. A coordinated combination of learning and working is a much better approach.

The January 20, 1977, issue of *Manpower and Vocational Education Weekly* carried this news item:

Jimmy Carter's transition team has little confidence that vocational education can do much to help solve high youth unemployment, the team's education coordinator said Jan. 13.

Sharlene Hirsch told the National Advisory Council on Vocational Education the transition team had a "fair amount of skepticism that vocational education could be entrusted with solving youth unemployment." The education group generally felt that Voc Ed Schools are crowded with applicants and thus use tough admission standards which discourage minorities and potential dropouts from enrolling, Hirsch said.

In addition, Hirsch said she has gotten some "funny inklings" from the Office of Management and Budget that questions will be asked about how vocational educators can be spending \$4 billion on job training programs, while Carter and others say another \$2 billion is necessary to put young people to work. With the lack of support for Voc.Ed. among Carter insiders, Hirsch said most efforts to combat youth unemployment will be funneled through the comprehensive employment and training act.

A third prestigious group also looked at, discussed, and gave input on this age group. The Houston Seminar in December, 1976, of the National Governors' Conference addressed "The Employment Problems of Youth." This was a critical topic for discussion and action. Both short-term policy issues and long-term policy issues were debated. The following topics were included:

- effect of minimum wage laws
- how youths find jobs
- the extent of rising entry-level requirements
- the kinds of guidance and counseling youth receive and need
- the benefits of work in our society

Here are three prestigious, action-oriented, and influential groups addressing high school and college age persons' needs. Are we as educators and change agents concerned? Have we designed a strategy or strategies in the schools and colleges which will do something constructive to give the 16 to 24-year-olds hope so that they can help themselves?

My first point is: Are we concerned about youth unemployment?

Now let's turn the second spotlight on: The School-College Responsibility in Youth Unemployment. What have the schools and colleges done to address these needs? Or, what haven't we done which has contributed to the problem?

Alvin Toffler wrote: "Millions pass through the educational system without once having been forced to search out the contradictions in their own value systems, to probe their own life goals deeply; or even to discuss these matters candidly with adults and peers."

We, as educators, know that career education as a concept is making inroads on helping students relate academic subject matter to the world around them. Career education is also helping the students better understand the work-clusters, job families, and the work alternatives that are available. Career education is helping a higher percentage of young people to know themselves and to make better career and work decisions.

Certainly we know that vocational education has served many youths through a variety of programs in bridging the school-employment gap. Apparently we need to do much more in vocational education and serve many, many more people. Some are saying vocational education should provide a broad liberating education that prepares one for many forms of participation in the future world of work.

We must help our young develop what R. Freeman Butts has dubbed a spirit of community: a blend of social cohesion, purpose, and moral commitment that draws people together, builds their sense of identity, and creates mutual loyalty.

While education has been addressing the problem, many people in leadership don't think we have made sufficient impact. Deputy Assistant Ben Burdetsky of the Department of Labor stated the following in the magazine *Worklife*, November, 1976: "Many students find what they studied in school is unrelated to available jobs; that the skills they learned are not needed where they thought they would be. Some discover their training is not geared to new processes, materials, or technological developments, especially when the training is confined to the classroom." He continues "... few students are exposed to occupational or labor market information, and many counselors and teachers suffer from the same lack of knowledge."

William J. Spring, Director, Boston University, Regional Institute on Employment Policy (in his paper, *Youth Unemployment, Bridge Jobs and National Policy*), noted the following: "In the progressive era, the idea was to get young people out of destructive, exploitative industrial atmosphere into therapeutic schoolrooms. And now, ironically, it's an effort to get young people out of demoralizing, unrealistic schools into the real-life, learn-by-doing atmosphere of industry and commerce."

Rev. Jesse Jackson had a message on productivity in this country. Think with me how *his* message may be saying something to us as educators of this land.

Productivity is low in this country because the will power, which has been messed up by the pill power, is in big trouble. We must tell our young, tell our business people, that the laws of convenience lead to collapse. The laws of sacrifice lead to greatness. The laws of convenience lead to collapse. In our culture, the laws of convenience have become all too standard. And anything achieved conveniently is too common to appreciate.

You will not become an Olympic star practicing conveniently. You will not become a great singer, great dancer, great athlete, great anything worth being great about, conveniently. The laws of convenience lead to collapse, and that does not mean that you will supplant that with the laws of oppression.

The fact of the matter is, the laws of sacrifice tend to make people bear burdens and use muscles they otherwise didn't know they had.

We must move from undisciplined appetites, underdeveloped minds, and unethical conduct and begin to use the power we've already got in ourselves to bring about equity and parity.

If you leave the people ignorant, they will make bad workers and bring down productivity. If you leave them unemployed, they can't buy your product. If you tease their appetites, they will steal. So if you don't teach people how to run stores, they will teach themselves how to ruin stores.

It becomes a matter of basics. And it's not limited to race. Our culture is trapped by the gravitational pull of mediocrity and averageness. We glorify that which is average and punish that which is excellent and intimidate people who pursue excellence—underdeveloped minds, people who do not realize their full potential, and pursue the route of inconvenience and shortcuts, undisciplined appetites.

While education has accomplished much, the problem continues to increase. Education in the immediate future must do something different. Education must do something with a wholesale effort which addresses the needs of the young and work.

What does all this mean to us gathered here today? If we are the change agents in education, and I believe *you are*, something can and will be started!

Let's put our third spotlight on an idea that may provide hope: *A Major Human Resource Policy Created by Schools and Colleges.*

Schools and colleges need to develop a human resource policy for their institutions. Certainly education needs to address head-on, the problems of youth unemployment, education, and work. The role or roles education plays in this national issue must be examined so that solutions can be created.

Educators must look with new energy and feelings to the communities and peoples they serve for input and answers to these concerns and problems.

The attention, interest, and concern for a human resource policy must come from the district board. Individually, board members must sense the need, the urgency, and the importance of such a policy.

As educators, and especially as change agents and innovators, we have tried new programs. Many times, in fact probably most times, the individual board members didn't fully understand the need, purpose, goal, or strategies involved. Too many times, when the project money dissolved the project died also.

Suppose the district board gets personally involved in shaping a human resource policy. The policy would address those problems affecting youth unemployment and allied areas. The community would be the arena for input. The community as a whole could get involved in framing a community human resource policy. All segments could dialogue: parents, students, the work community (business, industry, labor, agriculture, etc.), government, and yes, educators.

Public hearings could be held. Position papers could be developed and presented. The local board would be able to judge the scope, depth, and breadth of the concern for youth unemployment and educational needs in their community.

A human resource policy would need to address numerous strategies:

- the role of work in education
- the career development theory
- labor market skills
- vocational skills development—as a delivery system
- allocation of resources
- utilization of community resources
- job availability

You can build on these strategies in your local arena. Allow me to quickly skim a few ideas that might be addressed under each one. Each strategy, plus others, must be discussed, analyzed, and thought out, and resolutions must be developed for policy implementation.

Strategy No. 1: The Role of Work in Education

Ken Hoyt defines work as: Conscious effort aimed at producing benefits for oneself and/or for oneself and others. As such, it is unimportant whether such effort is paid or unpaid in nature. What is important is that it represents the basic needs of all human beings to achieve—to accomplish—to do something productive that allows the individual to discover both who he/she is and why he/she is. With this definition, work is properly viewed as a human right—not as a societal obligation.

Through community discussion the dialogue could be generated between those saying work should be paid versus those saying non-pay work is also good. The key is that the community provide input. The board must then hear the issue and come to a policy decision.

Strategy No. 2: The Career Development Theory

What do we believe about this theory within a community? Are we attempting to make seventeen-year-olds behave like twenty-five-year-olds?

Osterman's sample (related only to males) indicates that males fifteen to seventeen years of age are not yet seriously interested in career jobs. They are interested in money sufficient for them to play a role among their peers.

Osterman's sample shows an almost universal pattern that young men under eighteen take secondary labor market jobs—first, as part-time work while they are in school, and then, for a year or more after they leave, on a full-time basis, but often with much shifting of jobs. An effort to instill in such young males the attitudes toward steadiness and career concerns almost universally found in twenty-five-year-olds is unlikely to be met with much success.

Osterman's next stage, eighteen to the early twenties, is the exploratory stage. Here young people begin attempting, seriously, to find a career, a place in the world. After a period of exploration, often spent working in a number of small shops, these young men are ready to settle down. Willard Wirtz, former Secretary of Labor, notes: "Too much emphasis is being put at the high school level on designing curriculums to train youth for their first jobs rather than teaching them to cope with the working world."

What implication does this have for a human resource policy? How does it relate to the work community and education?

Don't we need to have community discussion and involvement on this strategy?

Strategy No. 3: Labor Market Skills

Much discussion needs to take place on this strategy:

- How do we equip students with good work habits in school activities and studies that carry over to on-the-job work?

- How do we create an educational environment that helps students establish work values?
- Through what process do we equip youth with decision making skills in personal and vocational areas of their life?
- How do we receive, individualize, and internalize occupational information, people-power needs of today, and trends for the future coupled with personal attitudes, interests, and geographic needs?

Many of these need to be developed in the schools and colleges through integration of the career education concept.

Strategy No. 4: Vocational Skills Development-A Delivery System

Here again, considerable discussion needs to take place, especially between the work community and educators, on how, when, and where these skills are best delivered to youth.

- What vocational skills are best delivered in the educational setting?
- What vocational skills are best delivered in the work setting?
- How are these decisions made and by whom? Who supervises the students on the job?
- When should vocational skills best be delivered?
- How do we determine what skill development is given at the secondary or the post-secondary levels?
- How do we create greater insight into the common ground between vocational education and general education?
- Where do we offer exploratory activities in the educational system?
- What types and levels of work education should be utilized by the educational institution:
 - work exposure
 - work experience
 - cooperative education
 - internships

And for what period of time should each of these be utilized?

Strategy No. 5: Allocation of Resources

- How do we couple funds from federal, state, local government sources with those of private foundations and private enterprises?
- How do we articulate the programs and projects so that wasteful duplication is avoided?
- What evaluation procedures need to be put in place so that diagnostic results will be available and be utilized in making sound educational and business management decisions?

Strategy No. 6: Utilization of Human and Community Resources

The greatest source of information and direction in this area appears to me to be addressed in the current thinking related to community, education, and work councils. The book entitled, *The Boundless Resource*, by Willard Wirtz, provides many suggestions for tapping the community resources. Many of these ideas need to be dialogued by the community and then placed in the board's human resource policy.

Strategy No. 7: Job Availability

We must start with the realization that there is no way in which training and community organization can substitute for job availability. Job availability is a function of economic activity in the nation. Work availability needs to be inventoried; creative thinking needs to be nourished for this strategy.

Jesse Jackson provides another viewpoint well worth thinking about:

I know that we need jobs, but we need a will to work to precede the job. We think as economic determinists, and that's what we say is bottom line when we simply ask for more money. We say, as economic determinists, where there's a way, there's a will. Give me a job, and I'll find you a man. Try it. Life shows that where there's a will there's a way. Give me a man. You'll make a job; make many jobs; make nations.

New congressional action is in the hopper relating to this strategy. We need also to explore such areas as military base youth job possibilities and nonprofit organizational needs.

These seven strategies are *not* exhaustive. Others will surely be needed to develop a comprehensive district-wide human resource policy. My hope and plan was to tickle your imagination, to stimulate your creative talents, to get you to pursue a key policy approach that involves all publics in addressing an exemplary approach to a crisis need in this country—youth unemployment.

In conclusion, let me point out that as change agents in education we need to review here at this conference:

- how we have functioned
- which processes and procedures have worked and which have failed
- the needs of the people we serve

How many times have we started an exemplary or innovative project without community understanding or support? The board didn't understand but approved the project. We ran the project and did good things; but when the funds were gone, the project was also gone.

We need to change the pattern; we need to address critical areas; we need to be sure the community is involved in the formation and implementation of the concepts and the project.

The board must understand the community's interest and help design the goals of the project.

Young people have a need for employment and education has much to offer in solving this national dilemma. This time, let's utilize a procedure that generates communication within our communities such that decision makers at each level understand and support the project purposes.

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IMPLEMENTING EXPERIENTIAL LEARNING

Joyce D. Cook

I'd like to take this opportunity to welcome you on behalf of the U.S. Office of Education to the Fifth National Conference devoted to the Exemplary Programs in Vocational Education. This welcome, incidentally, is equally extended you by our Office of Education colleagues here in the Dallas Region. Herb Mackey, Bill Cummins, and Emmet Tiner have worked together with us and the Ohio Center on hotel accommodations and other aspects of the conference, and they have asked me to extend you a warm welcome to the Dallas Region.

Personally, I'd like to say that I approach this particular conference with some mixed emotions. First of all, the Part D program (Vocational Education Amendments of 1968) in Vocational Education has never been a particularly "run-of-the-mill" kind of activity. It was the first federally-administered, discretionary program in vocational education for the support of exemplary/demonstration kinds of projects, and it was designed by the Congress with the intent that it would translate promising research results into educational practice. Within its program strategies, the U.S. Office of Education had to establish some new relationships with the State Departments of Education and, more particularly, some direct relationships with local school districts and local educational institutions. In this respect, relationships were to be different than those which had been established in the previously-sponsored research activities of the Agency. They were to be different in that the program was designed to reach and to serve the young learner. Watching the relationships between the federal, the state, and the local institutions develop and solidify into what is now a pretty fine working partnership has been extremely rewarding. Within the Part D program activities there have been no major confrontations over federal intervention in education. And you should know that whenever I speak of federal activity in vocational education I also speak of the contributions of my colleagues in the U.S. Office of Education Regional Offices. Much of the success of the Part D program over the years is attributable to their hard work and their dedication to the activities that we have undertaken jointly.

Second, we should recognize and take some pride in the fact that the Part D program in vocational education was active in the career education movement before it had that name. Our involvements in and our contributions to that movement—probably one of the few in education right now that can genuinely be called an educational reform that is national in scope—have been both considerable and highly significant.

Finally, you are all aware that Part D was not carried forward into the new legislation as a separate and distinct federal program initiative. Instead, its purposes and its functions have been carried forward into a new program called the "Program for National Improvement," which consolidates what were previously separate programs of Research, Exemplary Projects, Curriculum, and certain aspects of Vocational Personnel Development. This consolidated program gives the federal government a high degree of flexibility in the utilization of the monies allocated to us both with respect to priorities in a given year and with respect to the distribution of funds to the geographic parts of the country. There is for me, nevertheless, some personal nostalgia attached to the ways

in which the program operated in the past when funds were allocated by the Congress on a state-to-state basis and the states had veto authority over the proposed federal activities. The kinds of changes that we can anticipate in organizational structure and in other aspects of program management are not yet clear to us, but they are and will be a part of the continued changing conditions of our lives. "Changing conditions in education" is in fact, the focus of the conference but in areas of educational endeavor that will affect you more directly.

Those of us—federal, state, and local—who have been associated with the Part D program since Fiscal Year 1970 have fairly consistently found ourselves somewhere between "the way things have been" and "the way things are to be." In recent years, studies in the corporate world have begun to focus on the whole area of stress—attributable to personal and environmental change—and its effects on the physical and psychological well-being of corporate managers. Well, some of us in the Vocational Education Part D program are beginning to feel that we can speak to that topic with an expertise born of daily practice. We are here in Fort Worth, I believe, to try to share both some of the stress and some of the reward associated with championing educational change.

In the time allotted to me this morning I'd like to try to express what we had in mind when we assembled this particular group for the meeting here in Fort Worth. Obviously, many of you know each other well within your states and have worked together before on problems of mutual concern. We believe that we can make a good case for our working here, together, over the next three days. We believe that out of commitments made here—we can begin to solve some problems and that each of us can make some real and meaningful contributions to their solutions.

The overall commitment of participants in this conference—the thing we have in common—is that we each devote ourselves to improving the learning opportunities and the learning conditions of young people and adults. There is no other basis for our jobs and our salaries. Only as benefits accrue to the learner and the taxpayer are we justified in accepting our positions and our salaries in activities which are supported by public funds.

But the road between federal activity in education and the opportunity of every taxpayer to enjoy direct benefit is a long, winding, sometimes perilous road, and it is often fraught with unforeseen obstacles. By far, the greatest of those obstacles may be the way in which we view our own roles and responsibilities in relation to the consumers of educational programs. If we view ourselves as having limited obligation to a single segment of the learning public—that segment which we have selected through pre-established criteria to participate in our educational programs—then we have one role definition and one set of obligations. But if we view ourselves as having an obligation and a responsibility to every learner and every taxpayer through our leadership activities, then we have a different set of obligations.

During the next three days, we will ask you to lift the veil of some previous role definitions and some previous limitations imposed by program selection criteria and artificially designed program standards. We want to look at some new roles we might play and some new strategies we might use in improving our service (the service of all of education) to the American taxpayer and to those persons who not only are now, but who might potentially be, the consumers of our educational leadership activities.

As your program reflects, we are to concern ourselves with improving the impact of innovative programs in vocational education. Innovative programs can run the gamut of those in research to those in curriculum development to those in teacher preparation. But their most common characteristic is that they represent a "different way of doing things"—a different way from that in which we used to do the same things or similar things. They may cause us to serve more people. They may cause us to serve the same number of people better. Or they may cause us to do both.

The fact is that when we have spent a good slug of the taxpayers' money on developing a new or a better way of doing things, and when we are unable to show that we have improved anything for the learner, then we are open to the taxpayers' and the politician's criticism. As stated previously, the road from the development of the innovation to the consumer of education is a long road, and it just may be that we are among the obstacles along that road.

Evaluation studies which have attempted to show that our activities in vocational education innovation have had an impact on the learner and on the potential learner have had less than positive results. Their failure to show positive results can be attributed to any number of possible variables, including the possibility that evaluators have looked for results in the wrong places. But we really can't avoid the potential that our own activities and our own omissions contributed to their negative findings.

This is what our conference is all about: first, to establish the mechanisms and the strategies to ensure that our future efforts in vocational education innovation get to a broader range of consumers; second, to ensure that when they do get there, they are effective in serving the consumer better (both in numbers and in quality); and third, to ensure that their getting there and that their effectiveness is documentable.

As a vocational educator, I am convinced that much learning and many new developments are best formulated "in context." I am a firm believer in the old adage that "necessity is the mother of invention," and I believe that planning which is developed out of need is more often carried out and that commitments that are made to specific events are more often kept.

Thus, we are asking that the system or the mechanism that you develop here on a state-by-state basis to improve the impact of innovation be developed in the context of how it will be applied to a particular educational innovation. And if my beliefs as a vocational educator are well-founded, you will be able to use the same strategy and the same mechanism for translating other educational innovations—like the ones you have brought here for display—into broad educational practice within the schools in your state.

The specific educational innovation that we will be dealing with was completed by the National Institute of Education. The initial step into actual educational practice will be made in the Part D projects as the grantees install their demonstration projects. But the next step—that of having the new, innovative practices actually adopted and maintained by every local school system and every teacher preparation program in the country—is yet to be established. That is to be the applied portion of this national conference. The system or the mechanism will be the state-by-state plan, and that by itself could be an abstract plan. But, we are asking you, as participants in this conference, to develop not just an abstract plan, but, on a state-by-state basis, the specific steps that can and will be taken by you to ensure that the investment of federal, state, and local resources in the research, development, and demonstration of this experimental education innovation has not been in vain. We want you to leave this conference with the knowledge that each of you—each State Part D Coordinator, each State Supervisor of Cooperative Vocational Education and Work Experience, each teacher educator, and each local Part D project director—will do an agreed-upon amount of work to be sure that previous, hard to justify educational resources finally get to where they are most needed. And they are most needed by all young persons and many of the adults in the United States. We believe that we have assembled the right people in this conference to accomplish our goals.

Back in 1973, Marion Craft of the Division of Vocational and Technical Education, Dr. Pierce, myself, and others began—at a national conference at the 4-H Club Center in Washington—to ask the cooperative vocational education community some questions about the future of cooperative vocational education and work experience programs in the light of the whole career education movement. Among the questions we thought out to be addressed at that time were:

1. How can we accommodate all of the young people in the country who, out of their career awareness experiences, will need and want new exploratory experiences and expanded training opportunities in the broader community (business, industrial, and government) outside of the school?
2. What are the barriers to additional alternatives for expanding opportunities for young people?
3. What kinds of things can we do together to begin to reduce those barriers to expansion?

At that time we acknowledged that only about 2.8 percent of the total secondary and post-secondary education enrollments had access to school-supervised, instruction-related cooperative education opportunities and that a comprehensive career education program would require vast expansion of these kinds of opportunities for young people. Also pointed out in the conference proceedings was that:

1. The cooperative vocational education programs as we knew them had not been widely used as a strategy for the provision of career exploratory activities.
2. In most instances, the cooperative vocational education programs had served the job preparation needs of young people who all desired training in the same occupational area, but it had not accommodated very well the young person who desired exploration or training in a different occupational area where the level of student demand would not warrant a specialized program.
3. The cooperative vocational education programs had not been able to accommodate disadvantaged and handicapped youngsters in the proportions warranted by the needs of those young people for cooperative education experiences.
4. Cooperative vocational education programs had not been developed in such areas as hospitality and recreation, marine science and environmental occupations, the fine arts and humanities, public service occupations, and communication occupations.
5. Cooperative vocational education programs had not been developed and implemented for the participation of academic young people who wished to begin their preparation activities and training at the high school level.

Barriers cited to the expansion of cooperative vocational education programs to the above populations and in the above-new occupational areas were: (1) the necessity for communicating new goals and new purposes for the programs depending on the purposes of young people involved in the programs (in other words, the goal of employment should not be held up as a measure of accountability if the young person's purpose was exploratory); (2) attitudinal and legal barriers to the provision of non-paid work experiences and learning opportunities in the community, even though industries felt they could vastly expand their programs if this alternative were developed; (3) the burden on business and industry of uncoordinated placement and supervisory activities on the part of so many separate programs within the schools; (4) the lack of adequately trained personnel for the coordination and supervision of programs dealing with the provisions of the Fair Labor Standards Act and the Occupational Safety and Health Act; and (5) the absence of in-school related instruction for young people preparing for such occupations as journalism when the most appropriate in-school instruction was actually an academic discipline.

That the U.S. Office of Education and the National Institute of Education have not been idle since that 1973 Conference will become obvious to you. A good portion of the next three days will be devoted to letting you know what we are about in the Part D activity we initiated in September and October of last year. Because you will be hearing the terminology of a great variety of community learning relationships, we have taken the liberty of proposing some definitions which we hope will be helpful. We want to avoid having your deliberations dissolve into arguments over semantics instead of having you deal with the real issues of learning about the accommodating a "new way of thinking" and potentially some "new ways of doing things."

The learning activities that will be demonstrated in the Part D projects will attack some previously held assumptions. Among those are that (a) young people must be paid for their learning activities out in the community; and (b) academic credit cannot be awarded for experiential learning. We now know these two assumptions to be false. It is both practical and feasible to arrange for learning in the community on a non-paid basis, and it is possible and feasible to award academic credit as well as career and vocational credit.

I am told that teacher educators have a need that we can begin to address. One of the most consistent criticisms that is leveled at teacher preparation programs is that they are slow to respond to the needs of teachers and school administrators for new teaching skills and for alternative programming techniques. And teacher educators have responded that we leave them out of the action when federal programs take innovations directly to local school systems, bypassing the very institutions who have the greatest need to know about the latest methods and techniques in education.

We hope that this effort to involve teacher educators on the "front end" of vocational education innovation will begin to make up for our "past sins" in the career education movement.

If our Part D program activities are as successful as we anticipate they will be, then we will have a great need for professional people (teachers and administrators) who

1. know and understand how to identify and engineer community resources for career exploration, career preparation, and the delivery of academic skills in an applied environment.
2. know more than they now know about how to develop learning environments within the constraints of the Fair Labor Standards Act and the Occupational Safety and Health Act.
3. know how to protect young people and community people through new commercial insurance policies and new kinds of state legislation on "workers" [sic] compensation, when they form alliances for the academic benefit of the young people involved.
4. know how to train business, industry, and government people to work toward measurable student outcomes and to work within the structure of "competency-based instruction."
5. know how to measure actual "world of work" activities against educational and academic standards in such a fashion as to warrant and justify credentializing those activities for high school and college credit.

We made our case previously, I believe, for the need to document greater impact as a result of vocational education innovation activities. Our Part D project directors have been and are being directed to work closely with you in any way possible to see that your needs (the needs of states and teacher preparation institutions) are met within their demonstration programs and activities.

Because most of these projects were first funded less than six months ago, and since we intend to support them for, at the most, three years, the activities and strategies you develop here can stretch two and a half years into the future with some degree of confidence.

To summarize, we are here

1. to establish the mechanisms and strategies to ensure that efforts at vocational education innovation get to a broader range of consumers.
2. to ensure that when they get there, they are effective in serving the consumer better (both in numbers of consumers and in quality).
3. to ensure that their getting there and that their effectiveness is documentable.

When you have finished developing a mechanism for working together to the end that educational solutions can be moved into practice in your state, we want you to commit yourselves to accomplishing that fact—not only for this round of Part D projects, but for each of the documents that you have brought here to show to other states and for each of the research and demonstration projects that you fund in the future.

Most of you are aware of requirements in the new vocational education legislation that our grants will result in improved teaching techniques or curriculum materials that will be used in a substantial number of classrooms or other learning situations within five years after the termination date of such grant.

We believe that we have a lot to offer each other, and that if we are able to set our minds and hearts to that task today, we will be able to show considerable impact from our joint efforts in the years ahead.

DISSEMINATION TWO STATE PERSPECTIVES
LINKING RESEARCH AND DEVELOPMENT WITH DISSEMINATION—
THE ILLINOIS APPROACH

Ronald D. McCage

Have you ever stopped to think or ask yourself why or how you got involved in the research, development, dissemination and diffusion process, or more specifically, why you applied for funds under Part D to implement the Experience Based Career Education concept? Have you ever thought about your local involvement being a part of a much larger research, development, dissemination, and diffusion process, and have you even attempted to determine and/or understand what your role in this process actually is? Do you think about or understand that you are a part of a major effort to carry out the Congressional intent of a piece of legislation or, on a slightly lower plane, a part of a major national network of site implementation of a specific concept, namely EBCE?

I would assume that most of us never look at things from this point of view. Some of us may have been very serious about the concept and had a real desire to become involved in EBCE, and this gave us an opportunity—a golden opportunity—to do so. One of the things mentioned by Darrell Parks in his earlier remarks was the importance of the legislative emphasis, the impact legislation actually has had upon us in the past and what influence it will have upon us in the future. I know I never thought much about this whole concept until I came to Illinois about seven years ago. I came basically from the background of a very small high school, a relatively small college, and a teaching position in a relatively small rural county high school in Kentucky. I know that in that environment I never thought about or realized the influences that such things as legislation at the federal and/or state level really had on what went on at the local level. I knew very little, and cared less, about the role and function of a state educational agency. One of the things that I have gotten heavily involved in since I have been in the research and development business is the entire legislative and planning process. I have come to realize what an impact it really has on all of us and what really needs to be done to make things happen at the federal level and down through the state and local levels. I raised these questions and made these introductory comments to lead you into what we are here for today.

If you think about legislative history pertaining to vocational education research which I define to include Part C Research, Part D Exemplary, and Part I Curriculum, you have to realize that vocational education research and development is basically in its infancy. Until 1963 most vocational education research was conducted in a university setting in the form of unfunded dissertations or faculty studies. The 1963 Vocational Education Act gave us the 4 (C) Research Section and provided for the creation of the State RCU's. The 1968 Amendments gave us provisions for Part C Research, Part I Curriculum, and Part D for Demonstration and Innovative-type activities. These provisions have given us the emphasis and funding source to make things happen, but we must still remember that the real outcomes of the activities conducted under the auspices of the 1968 Amendments are yet to be seen. Most of the usable products are just now becoming available for implementation.

Vocational education research and development has recently come under a considerable amount of fire because of the present interest in vocational education legislation and the recently completed COVERD Report. Many of us have become very defensive because of the COVERD findings and have tried to find or create excuses for not looking as well as we think we should have looked. While the COVERD Report could be criticized for its inherent weaknesses, it did provide us with several messages that are applicable and that we ought to listen to very carefully. Throughout the report we are constantly reminded that the \$250 million spent for educational research and development has produced visible impact but that we in this field could not provide hard data to document the impact or for that matter, the lack of it. In other words, our product and process evaluation was practically non-existent.

Secondly, COVERD told us that there was very little relationship between what we did in research and what we did in curriculum and/or what we did in exemplary. This, to me, is a very serious indictment since we in vocational education should, by law, concentrate primarily on applied research and implementation. What we do in vocational education research and development should ultimately have application at the local level in terms of improved programs and/or supportive services. This one finding has been credited with causing Congress to consolidate vocational education research, curriculum development, and exemplary, innovative, and personnel development functions under one part of the new Act. The message here is that our approach should be comprehensive and follow a continuum from research and planning through development, field testing, dissemination, demonstration, and diffusion. COVERD told us that we have done an inadequate job of setting priorities and that we need to emphasize this area at all levels. Well, by now you may be asking where I am heading. Basically, I believe that Illinois has in motion a mechanism which, if implemented in most states, would help to counter the finding of the COVERD Report and provide the basic framework for the management of research, development, and demonstration under the new bill.

In Illinois we treat research and development as a federal-state-local partnership with the state agency sitting square in the middle. We serve as a broker and a link between the U.S. Office of Education and the local agency in everything we attempt to do. We involved the local people in all aspects of a research and development continuum.

In October of each year we distribute a very abbreviated survey to several diverse populations in Illinois. We ask them one simple question: "What needs of yours can one state agency respond to in terms of research, developmental activities, and exemplary and personnel development activities." We get some inappropriate responses but we also get sound information which points us toward current trends and needs at the local level. These trends and needs become the basis for our research and development priorities which ultimately result in our annual request-for-proposal-document which is sent to all local public educational agencies and selected private educational management firms. We fund all activities by contract with either universities, junior colleges, local elementary and/or secondary agencies, or with private consultant firms. I might also add that the secondary and junior college levels give us results in research and development outcomes equal to or better than university or private firms. I think we often assume that local school personnel are not sophisticated enough to conduct these types of activities when, in fact, they usually find themselves in the center of what's happening and have a much better feel for what needs to be done. They may not use the most scientific approach, but they usually come up with a product that is usable.

In our long-range planning effort we look at all activities as phases of an R&D continuum. We may start off with a *Research and Planning Phase*. During this period we may be funding projects via contract that tend to assess the state of the art. We may be collecting information on which to base our planning, or we may be conducting extensive evaluations of an existing concept that needs

upgrading. Once the research and planning are completed we then move into a *Developmental and Testing Phase*, if appropriate. During this phase we may be supporting the development of a curriculum based on the R&D phase. We may be developing a total program model or concept. We may be field testing a product with local agencies or with other similar institutions. These two phases generally fall under our concept of research and development and are normally supported from Part C funds.

Once the activity is developed and tested we move into the *Dissemination and Diffusion Stage*. During this stage we use a variety of approaches based on what is best for the concept in question. We may simply distribute copies of a given research report which requires no further explanation. We may disseminate materials to other states through the East Central Curriculum Management Center and also in AIM/ARM or ERTC. These are passive measures on our part and require very little state and local effort or emphasis.

When we really want to impact on the field, we use approaches such as conducting in-depth workshops where the materials are distributed and specific training is conducted. We work directly with universities to incorporate concepts into on-going graduate and undergraduate programs. We hold publishers conferences to allow products with mass distribution potential to be picked up and distributed by a commercial firm on a national basis.

One of our most successful dissemination and diffusion tools are the demonstration centers which are supported from Part D Exemplary Funds. These exemplary and innovative sites may be of three general types:

1. those which serve as a bridge between school and work for disadvantaged youth, as mandated in the 68 amendments;
2. those which serve as a vehicle for implementing and providing visibility for a product developed in the R&D phases already described; and
3. those which serve to highlight innovative programs and a technique developed at the local level regardless of funding source.

Nothing I have just described is unique. However, we try to think out this entire process prior to ever funding any project activity. We try at the outset to determine where we are going and how we are going to get there. We don't always succeed. For the past six years our entire vocational R&D effort has been coordinated to include research, curriculum, exemplary and personnel training, even though these elements operate within separate units in the department.

We also use this approach when we write proposals for the federal share of Part C or Part D funding. We look at things we have already initiated within the state and try to see how the federal project priority can enhance this total process. Our last two Part D projects serve as excellent examples. In 1973 we had approximately twenty-two developmental concepts from Illinois-funded projects which had been disseminated or demonstrated in various ways within Illinois. But very few of them had received wide-scale visibility. Following the Part D announcement, we submitted a proposal which simply advanced the idea of identifying two sites—one rural and one urban—which would be willing to select innovations from the list of twenty-two, adapt and adopt them to their local level, and then serve as national demonstration centers in the third year. The project came to be known as the CIOEDC project; Tom Boldrey, as one of the local site directors, will give you some insight from his local level perspective into how this worked.

During the past round of Part D projects the State RCU submitted a proposal to implement EBCE in three sites within Illinois—Joliet, Sycamore and Decatur. Tom is also involved in this.

The state office, with local personnel, wrote both of these proposals. In these two projects, a person in the office is specifically responsible for working with the local sites. This provides the local site with someone who helps open doors, remove legal barriers (as in EBCE), change funding policies and procedures, etc. This arrangement provides state level visibility for activities being conducted locally; again, the idea of state-local partnership.

I would like to leave you with some key points—I think that vocational education research, development, and demonstration, by law (and I emphasize by law), should be applied research rather than basic research. That does not mean that some basic research can't be conducted in the process of getting to applied research. NIE and USOE have agreed that NIE will do the basic research and that we will do the applied research. I think that we need simply to *concentrate* our efforts in the applied arena, since we have a legislative mandate to do so.

Whatever we do in vocational education research and development should be based on a sound set of priorities. And those priorities should be based on local input which reflects both state level and local needs. When you leave the local people out, you miss the whole ballgame. Congress has told us that whatever we do from now on should revolve around a total comprehensive plan and model based on a continuum of research and planning through dissemination and diffusion demonstration and so forth. I think that our *developmental* activities should be accomplished as close to the local level as possible and that we should involve the local practitioner in all aspects as much as possible. A mix of people from universities and elsewhere must help us with the evaluation processes as well as other aspects. But, I think too many of these things are developed in the ivory tower and laid upon local agencies. There are very few things (and I think most of you who are in EBCE can attest to this) that you can pick up and absolutely place in a local situation without making some changes. If the locals are involved in the process, there is probably less of a need for modification when the day of implementation actually comes.

THE END IS THE BEGINNING

Tom Boldrey

"What we call the beginning is often the end; the end is where we start from." When T.S. Eliot wrote those words, he wasn't writing a treatise on planning, but he might well have been. For, the beginning of planning is decided by the *end* we wish to achieve.

Let me illustrate it this way. In a previous Part D Program in which I was involved, we *began* with discussions concerning dissemination and demonstration, clearly a step beyond that of creating the implementation model.

But isn't this common practice? Doesn't everyone accept the importance of planning? Isn't everyone well versed in planning techniques? In most cases the answer to these questions is yes. Then why is planning so often less effective than it should be? I believe the answer to that question is "people"; or more specifically, the attitudes of people. Failure to take these attitudes into consideration can result in the failure of even the most brilliant plan. Conversely, even a mediocre plan can be brilliantly implemented if those attitudes are recognized and utilized.

Many innovations in schools begin with a publicity blitz, without considering the implications. Front page headlines, colorful brochures, and media coverage provide visibility for a new program as it begins. To the surprise of many, people in existing programs become resentful. Instead of gaining advocates for the new program, opponents emerge. People become polarized and fractionalized. Staff in programs existing before the new program have often devoted long and hard hours of work without receiving any recognition or the advantages of special support and resources. Too many innovations die a slow and painful death because of the subtle and covert action of those in the system who are not a direct part of the new program. Caution is in order for beginning a program with "hoopla" or with "claims" that can't be easily supported.

Too often, programs are more widely accepted and understood in the next state than they are in the next office or in the classroom next door. Too often, demonstration is deemed successful only if people come from long distances. If Part D "type" innovations are to have the greatest impact in the long run, they must at least be ongoing in the place where they originate after the "soft" monies are depleted. Internal (local) demonstration must be a deliberate and systematic first step. Local acceptance may be the most difficult goal of all, but the most important.

I would like to share a couple of other points about dissemination. First, dissemination may have several different outcomes (ends). In Illinois, demonstration generally applies to awareness. Things are exhibited and people are observed in their own settings. Demonstrations are not intended to train or strengthen the participants' skills; workshops are designed for that purpose. Clearly, it is important that the purpose of dissemination be made explicit from the start. What is done for dissemination must be determined by the purpose. I'm sure all of you are aware that educational jargon is one of our biggest obstacles in clear communication. I have found having a non-educator's assistance in writing the distributed material to be a tremendous asset. I have also found that since

we live in a visual culture, it is effective to use pictures and/or graphics to tell the story, while using a minimum of words. As career education focuses on people, so must dissemination.

Secondly, I believe that the so-called serendipitous benefits of dissemination are the most important in terms of the beneficial impact on education. Many educators devalue their work: Many feel hopeless and helpless in fending the negative press of low achievement scores, high drop-out rates, failing bond referendums, etc. Educators are blamed for these problems. Even if there is progress in the academic areas, educators are blamed for drug problems or increases in venereal disease. The point is, educators are seldom recognized for success. Neither teachers, counselors, nor principals know if their work contributed to a good product. It is much like the classical alienation/frustration of the assembly line worker who does not know what the end product is.

I have found that most educators are not aware of their own strengths and accomplishments but are preoccupied with their weaknesses. When they are provided the opportunity to explain their "works" to others, a sense of enlightenment and pride is often gained. When visitors are coming, there is extra incentive for doing well. When one's "work" is visible and shared with others, positive feedback results in messages like: "I'm OK," "What I'm doing is worthwhile," "Hard work pays off." Dissemination has significant value in terms of the morale and satisfaction of those involved. This is a benefit which can be achieved in no other way.

Most would agree that people are the key to successfully implementing innovations. As a Part D project director, it is important to keep in mind that new ideas are often accepted or rejected not on the objective merits of the idea, but because of the people with which it is associated. It is, therefore, necessary to develop advocates who are trusted and who have credibility. A new project director can not do that alone. There is a curious propensity to identify people and programs as synonymous. This identification can be at once an asset and a serious liability. I have found advantages to the philosophical approach and pragmatic actions which differentiate ideas from people. Project directors should work themselves out of a job if the components of the project are to become integrated into the regular system and continue after the brief grant period is over. The real test of innovative impact is whether the components of the program exist after the program initiators are gone. It is, therefore, essential that the innovations not be overly identified and dependent upon project staff.

In a typical program or project, the planning is done by the immediate staff. The staff, often too small to begin with, devote hundreds of hours to developing a plan. The successful implementation of that plan is usually dependent upon persons other than project staff. I don't think I need dwell upon the all too frequent result.

Implementing innovations/change is not very successful in the long run through mandate and imposition, particularly in educational organizations where curricular and instructional innovations are almost totally dependent upon the attitudes and behaviors of individual teachers and administrators.

Is there an alternative? Yes! Every person involved in the implementation of a given program should be equally involved in the planning of that program! It can and has been done!

Involving the community is a must. Advisory boards or committees per se do not fulfill this function. All persons gathered for input must have equal input; all must have equal voice regardless of status or verbal aggressiveness. A Goals Conference format utilizing the Nominal Group Technique meets these criteria. I have used this technique with a cross section of some 200 community representatives, educators, and students. I have also used it in staff meetings and in small groups for a variety of purposes.

The Nominal Group Technique, developed at the University of Wisconsin and tailored to the Goals Conference Format, offers several advantages:

1. All participants are able to express their ideas in reference to a specific topic in a structured setting.
2. All participants provide input without any individual or group being able to dominate.
3. A large number of people can have input in a relatively short time (approximately two and a half hours are needed) which generates a large number of ideas in reference to the topic of discussion.
4. The outcomes are tangible, as a list of priorities are developed that represent the group.
5. Most groups develop an esprit de corps and enjoy their time together.

Community input may have to be proactively solicited, but the results pay off. There must be open, two-way communications and mutual understanding of each other's problems and progress.

I wish to quote from a letter of Lawrence Brainard, Legislative/Political Affairs Manager of the Northern Central Division of the U.S. Chamber of Commerce. He formerly worked in Joliet, and his comments refer to the cooperative effort between the school and community.

"Your experience in Joliet differed from the approach often used by educators in that the schools came to the business organizations and outlined the scope of the problem and asked for ideas and help. From the standpoint of motivation, this told the businesspeople that you were truly interested in a solution and not just in dictating fuzzy ideas to the business community to enhance your bureaucratic ego."

The result of this open attitude was a partnership in fact and not just in name. Neither business nor education felt that they were running the other.

This free flow of ideas and communication and the flexible approach with which the whole question was handled motivated greater involvement by the non-education community in the education process."

In conclusion, as a practitioner, I find organization development theory to be useful in formulating strategies to begin a program and to develop strategies for insuring that a program lasts. This theory also aids in making decisions about dissemination. Who should be the target audience? How will dissemination be accepted? Should dissemination be considered a part of a total staff development process?

Hage and Aiken in their book, *Social Change in Complex Organization*, delineate seven factors that relate program change to organizational characteristics. Two of the seven characteristics have a positive correlation to change. As job satisfaction and the degree of complexity (extensiveness and intensity of skills and knowledge) in an organization increase, there is a more optimum climate for program change. The other five characteristics have an inverse correlation. They act as obstacles for change as they increase:

1. centralization (the way in which power is distributed).

2. formalization (the degree of codification of jobs in an organization).
3. stratification (the differential distribution of rewards to the jobs in the organization).
4. production (the relative emphasis on the quantity *or* quality of the organization's products or services).
5. efficiency (the relative emphasis on cost reduction of the product or service).

These characteristics offer keys to determining why some schools are more successful with innovations than others. These kinds of characteristics may be clues for applied research that will improve the impact of innovations.

If T. S. Eliot was right, if "the end *is* where we start from," my comments may provide, for some, a new approach to beginning.

USING STATE AND REGIONAL AGENCIES IN FLORIDA TO IMPLEMENT INNOVATIONS

Margaret E. Ferqueron

This paper is divided into three sections. The first section describes the Division of Vocational Education as a state dissemination agency; the second section describes a model for diffusion of career education; and the third section describes the role of the regional education consultants.

1 The Role of the State Education Agency

The Bureau of Research, Dissemination and Evaluation is currently engaged in sponsoring projects and activities to improve instruction in vocational education programs in Florida. These activities have produced and will continue to produce large amounts of materials. Increased production, distribution, and storage capacity are needed to deliver this educational material to intended users.

A high-priority of the Division of Vocational Education is to expedite the development of the system for reproducing, packaging, distributing, and diffusing products as a way to improve vocational education throughout the state. A goal of the Division is to design, implement, and maintain a system for infusing proven educational products, processes, and procedures into programs throughout the state for students, teachers and administrators in all vocational education programs.

The Division of Vocational Education is committed to the support of planned programs of development for new curricula and revision of existing curricula as a strategy for effecting constructive educational change. *Dissemination* is a process of providing products, procedures, and practices to targeted groups of educators. The process includes the elements of user-identification and distribution. *Diffusion* is a process of providing educators an opportunity to explore, test, and make decisions to accept in whole or, in part, the products, procedures, and practices shown to have value as a basis for expansion and improvement of educational programs, practices, and services.

The Director, Division of Vocational Education, felt these activities were important enough to warrant a Section which would be devoted full-time to dissemination/diffusion planning. At this point, a brief description of the Dissemination/Diffusion Section's functions may enhance your understanding the Florida Dissemination/Diffusion Process.

Dissemination/Diffusion Section Functions

The purpose of this Section is to develop and maintain a statewide system of dissemination and diffusion as a means of improving vocational education through the use of proven products and procedures.

The following functions must be performed if the purpose of the Section is to be achieved:

1. Develop a dissemination/diffusion system that will appropriately involve representatives in the Research and Development Section; Area Offices; Bureaus and Sections; Department of Education Research and Development Office; Universities; Community Colleges; School Districts; and the U.S. Office of Education; as necessary to develop plans for reproducing, packaging, distributing, and diffusing materials and processes developed through funded vocational projects needed in the improvement of vocational education.
2. Develop, with the assistance of directors of funded projects, descriptions of benefits, costs, and organizational arrangements needed to utilize the products and processes being developed.
3. Develop, with the assistance of project directors, educational consultants, local educators, and other appropriate persons, a description of the needs of potential users of the procedures and processes to be disseminated and diffused.
4. Develop with the assistance of educational consultants from the Department of Education, local educators and other appropriate persons, a description of advocate roles to disseminate and diffuse the product or process.
5. Select and state obtainable objectives to be achieved in the change process in terms of providing user groups an opportunity to: (a) become aware of products and processes useful in solving their problems; (b) make in-depth explorations into elements of the advocated change having direct interest to them; (c) use the advocated product or process in a limited way as a basis for; (d) evaluating the benefits to their problems; and (e) an opportunity to accept or reject, in whole or in part, the product or process being advocated.
6. Develop cost-effective methods for reproducing, packaging, and distributing the products and processes to be diffused.
7. Develop strategies and activities to achieve each objective for each user group served.
8. Develop time, sequence charts, and budgets for each strategy and activity.
9. Manage the implementation of each strategy, using educational consultants available in the area offices as facilitators and provide additional human and material resources through grants.
10. Develop and conduct, with assistance from educational consultants in area offices and staff in the evaluation section, an impact study of the diffusion plan as a basis of providing information needed in the evaluation and possible revision of the plan.
11. Develop and present interim and final reports of the dissemination and diffusion plans to appropriate personnel in the Bureaus of Vocational Programs and Staff Development; Planning and Budgeting; the Division Director's office and other offices within the State Department of Education and the U.S. Office of Education.
12. Prepare and submit a long-range and annual budget for dissemination and diffusion plans for inclusion in the bureau budget.

13. Monitor funded dissemination and diffusion projects to determine successes and problems in operating the plan and to correct deficiencies.
14. Establish working relationships with organizational units within and outside the Department of Education having dissemination and diffusion responsibility as a basis for eliminating unwarranted duplication of effort, to keep informed of pertinent developments and to share resources.
15. Review and recommend needed changes in policies and procedures for dissemination/diffusion of vocational education improved products and processes.

Dissemination Components

The functions of the Dissemination Units must address themselves to the distribution of new as well as established products.

1. Describe the product.
2. Identify the target population. This step will resolve the total number of copies required. The Occupational Program Administrator supplies the Dissemination/Diffusion Section with the number of educators there are in the area for which a specific product is developed. This number, combined with those agencies, institutions, or organizations the Dissemination/Diffusion Section knows must receive copies, constitutes the total number that must be printed.
3. Identify production requirements. In this step the following considerations are resolved:
 - 1) Determine appropriate format (tear-out, multi-media, etc.).
 - 2) Clear publications ideas with DOE Publications Board (artwork, design, etc.).
 - 3) Proof and edit all publications.
 - 4) Decide whether to sell the product. This also involves copyright questions.
4. Estimate required resources (both human and fiscal). In this step the following determinations are made:
 - 1) Print materials through DOE printing shop.
 - 2) Contract printing needs to a commercial printer.
 - 3) Utilize facilities found in the state (i.e., PAEC, Orange County, etc.).
 - 4) Utilize Career Education Center's Visual Communications Unit.
 - 5) Decide which of the aforementioned is the cheapest, best quality, most expedient (i.e., cost effectiveness).

5. Storage

- 1) Short-term—When requests are made, such as the *Annual Descriptive Report*, requestor submits the target population. As soon as printed matter is completed it is returned to the Dissemination/Diffusion Section. The Dissemination/Diffusion Section then disseminates the product to identified target population. Short-term usually signifies storage of zero-one month. Within four weeks the bulk of the product has been disseminated.
- 2) Long-term—Storage from zero-six months. After this time any large remaining quantities should be shipped to the DOE Warehouse.

6. Select distribution techniques. Determine the best process for distribution. This step is closely tied to the diffusion plan. Our Regional Program Consultants are the main linkage agents in the D/D process. All materials must pass through them.
7. Sequence and schedule activities to implement dissemination strategy.
8. Conduct impact assessment of adopted dissemination strategy.

The Acquisition and Processing Component

Housed within the Dissemination components is an Acquisition and Processing Unit. The numerous functions of this unit are:

1. To formulate and conduct information searches, utilizing computer-based programs and manual methods; and review educational materials for active contributors and recognized participants who may be identified as change advocates of vocational education.
2. To coordinate with the Career Education Center, FSU, the maintenance of a vocational education research-oriented materials collection system.
3. To coordinate with the Knott Data Center, DOE, the quarterly updating of the dissemination and diffusion data base and computer based programs of the Section.
4. To collect and catalog all Division Releases, abstracts, and reports.
5. To plan, develop, and maintain a storage and retrieval system for vocational education products, processes, and procedures.
6. To answer requests for materials from both within and outside the state.
7. To maintain a current inventory of all vocational education materials and products designated by the division for storage, dissemination, or diffusion.
8. To microfiche all materials.
9. To keep an adequate number of materials on hand at all times to meet the demand.
10. To formulate and implement the criteria for purging the Vocational Education Division's collection of Florida-produced/developed vocational curriculum materials.

11. To develop and maintain a "Directory of Division Releases."
12. To develop and maintain a storage and retrieval system for vocational education products, processes, and procedures.

Diffusion Components

The Diffusion concept in the Division of Vocational Education is based on the following premises concerning the change process:

1. Change in vocational education may be initiated from within or from outside the system.
2. In general, change initiated from outside a system is not based upon assessed needs.
3. Change initiated from within and outside a system should be based upon assessed needs.
4. Many persons view change as a threat to their status.
5. Threat to status can be reduced through planned programs of in-service development designed to clarify values and develop additional competencies needed to work effectively in the change process.
6. Change in a system occurs over time as people move through a process involving the components of: awareness, interest, trial, evaluation, acceptance or rejection, implementation, evaluation, and revision based upon results of evaluations.

The Diffusion process addresses itself to the aforementioned levels as a method for moving people through the change process.

awareness
interest
trial
evaluation
acceptance or rejection
implementation
review and revise

For all new products the target population must first go through the awareness level. This could be accomplished through brochures, professional journal articles, professional meetings, etc.

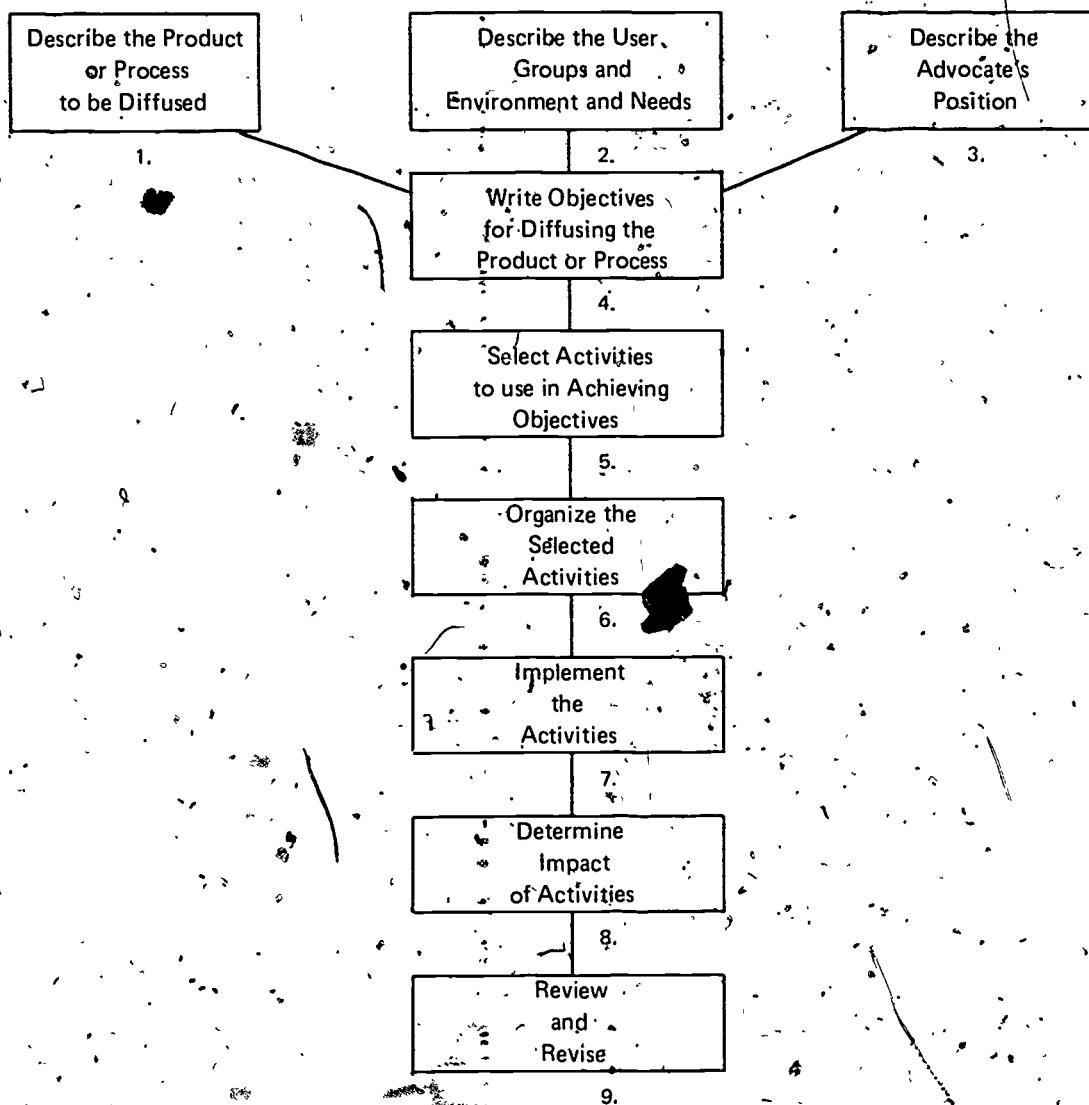
Hopefully, a dynamic effort at the awareness level would promote interest on a large part of the target population. The interest level might be enhanced through workshops where participants view the product and have an opportunity for "hands-on" experience. Another strategy at the interest level might be demonstration classrooms.

Sufficient exposure at the interest level should move the target population to the trial level. At this level the target population should be interested in the installation of the product on a limited basis.

Once the product, process, or practice has been tried on a limited basis, the client conducts an evaluation. Based on the results of this evaluation, the client either accepts or rejects the product.

If the client accepts the product, process, or practice, the implementation level is reached and full product installation can be planned.

Once the appropriate level is determined for the selected target population, a Diffusion Plan is developed according to the following model:



2. Description of the Diffusion Model

1. Describe the Product, Process, or Practice to be Diffused

At this stage the product, process, or practice to be diffused is described. The description includes consideration of: (1) the benefits to the student, educator, and public; and (2) human and fiscal costs. Some determinations in the cost category are: (a) determine additional financial sources for unexpected cost over-run; (b) estimate the actual cost in dollars, time, and personnel to implement; (c) determine whether teachers have to be paid for released time; (d) determine whether students have to be paid for participating; (e) determine the actual dollar figures that are needed to gain teacher and student support; (f) determine whether teachers and students have to be paid hourly or by output; (g) determine the amount of community financial resources that may be available; (h) develop a budgeting system; and (i) determine the reorganization of staff or an existing process or system.

2. Describe the Target Population and Its Environment

Describe the target population at the following levels:

- a. State Level
- b. Regional Level
- c. District Level
- d. School Level
- e. Community Level

Describe the target population in the following elements of the school environment:

- a. Organizational arrangements
 - 1) Centralization
 - 2) Decentralization
- b. Factors influencing school organizational structures
 - 1) Complexity
 - Autonomous Departments of Discipline (Curriculum)
 - Autonomous Management
 - Autonomous Testing, etc.
 - or
 - Centralized decision making
 - 2) Standardization of
 - Textbooks
 - Administrative Guidelines

- Lesson Plans—Rigid Adherence to
 - Routine School Procedure
- 3) Homogeneity/Heterogeneity of staff in terms of
 - Race, Philosophy
 - Profession, Preparation
- 4) School Resources
 - Equipment
 - Supplies
 - Materials
 - Facilities
 - Scheduling Arrangements
 - Reference Materials
- 5) Community Description
 - Rural
 - Urban
 - Suburban
 - Other
- 6) Community Size
 - Below 10,000
 - 10,000—25,000
 - 25,000—50,000
 - 50,000—100,000
 - 100,000—500,000
 - 500,000—1,000,000
 - Over 1,000,000

3. Describe Advocate's Position

The product advocate is asked to examine himself/herself in light of the factors which may influence his/her ability to promote the installation of the product, process, or practice. The following questions are an example of this examination:

- a. Do you know of evidence substantiating claims or benefits made for the product or process?
- b. Do you know the component parts of the product or process being advocated?
- c. Have you been involved in the development of the product or process?
- d. Can you be objective about the product or process?
- e. Do you have handouts describing the product-process?

- f. Are you knowledgeable about the subject area with which the product or process deals?
- g. Are you familiar with the community?
- h. Are you active in community affairs?
- i. Are you accepted in the community?
- j. Do you have tenure?
- k. Have you had diverse work experience?
- l. Are you accepted by your immediate supervisors?
- m. Are you viewed as a consultant?
- n. Are you generally supported by administrators in your organization?

The advocate should strive to become familiar with the product which is being installed. The ability to cite evidence of the product's past success in locations similar to the present installation site can impress a client group. Unless the advocate truly believes in the product, it is difficult to feel the clients will accept the product.

The advocate's role is truly of a marginal nature; that is, he or she must maintain respectability in at least two camps: (1) product developers must have sufficient confidence in the advocate to share information concerning problems in product development, and (2) the ultimate users must feel the advocate can understand and empathize with their position. The advocate is a linker of the product developer with the product user. This role sometimes requires the translation of technical information about the product into more practical terms. The advocate will have to make some operational decisions in installing the product at the practitioner level. This is one reason a good knowledge of the product will be extremely useful to the advocate. An advocate should expect to receive "mixed signals" from the two audiences. He or she should strive to mediate compromises which enhance the use of the product.

4. Write Objectives for Diffusing the Product or Process

Once the diffusion strategy is decided for the product, process, or practice, objectives are developed. The following are examples of some diffusion tactics:

- a. Endorsing the innovation through local professional organizations
- b. Finance with federal-state dollars
- c. Demonstrations
- d. Workshops
- e. Pilot Tests
- f. Conferences

- g. Public meetings
- h. Endorsements by highly credible persons
- i. Mass media communication
- j. Consultation
- k. Legislative mandates
- l. Leadership Change
- m. Role playing—simulation
- n. Giving recognition or some reward for persons trying the product or process advocated
- o. Compromise—bargaining
- p. Brainstorming
- q. Training—Retraining
- r. Collaborative inquiry—Problem solving
- s. Asking potential users to review or critique the product or process
- t. Small-group/large-group evaluations
- u. One-to-one counseling
- v. Competition

5. Select Activities to Use in Achieving Objectives

6. Organize Selected Activities

All activities must be timed and sequenced. This includes some of the following actions:

- a. Collect and analyze information about targeted guidance—learning styles, etc.
- b. Develop PERT charts for each target group
- c. Develop time lines and graphs
- d. Control—evaluate
- e. Remain flexible and recognize problems

7. Implement the Activities

As the Diffusion process moves into the implementation phase the following cautions should be attended to:

- a. Proceed cautiously
- b. Be flexible
- c. Maintain your style of interaction
- d. Be alert to reactions—problems—successes
- e. Constantly revise, using current information

8. Determine Impact of Activities

The following are considered in the development of an impact assessment.

- a. Develop and use discrepancy system for the activities.
- b. Collect information about the status of the activities.
 - 1) Evaluation status against the plans developed—infer discrepancy for each element of the activities planned
 - Human
 - Material
 - Time
 - Fiscal
 - Facility
 - 2) Critical Incident reports are useful
 - 3) Technical reports are useful
 - 4) Interim reports are useful
 - 5) On-site visits—talk to persons involved
 - 6) Identify resistance behavior
 - 7) Identify acceptance behavior

9. Review and Revise

Revision of the process is based upon evaluation data.

This process is engaged in at each level of diffusion (i.e., awareness, interest, trial, etc.).

The preceding diffusion process is not developed in isolation: It is developed in cooperation with appropriate division personnel. Collaboration is encouraged not only at the state level, but with regional personnel as well.

3. The Role of the Regional Career Education Consultants

The Department of Education has divided the state into five regions for management purposes and delivery of services to local school districts. The Division of Vocational Education has an office composed of a director and a consultant in each program area housed in each region. Therefore each region has a vocational education staff of eight persons. Each regional office has appointed one program consultant to also serve as a career education consultant for that respective region.

Regional career education consultants are a crucial link in the statewide diffusion of the career education concept. Their direct contact with the "grass roots" level keeps the state coordinator apprised of any revision which might be necessary in the state career education plan. Without the consultants' constant efforts in the area of "follow-on" activities, it would be extremely difficult to bring all sixty-seven school districts to the implementation stage in the diffusion process.

The two major responsibilities of the regional career education consultant are:

1. Providing technical assistance and support to school districts. This responsibility includes:
 - a. providing information on career education to decision makers at the district level;
 - b. supporting the development and dissemination of career education materials;
 - c. assisting the state coordinator in providing inservice training experiences for school districts, institutions, and agency staff; and
 - d. promoting the orderly articulation of experience across educational levels.

These objectives are accomplished in two ways: (1) monthly regional meetings for district career education directors/coordinators are planned and conducted by regional career education consultants; and (2) the regional consultant may visit a school district upon request to view a problem and make recommendations, or the consultant may initiate a visit to maintain satisfactory communications.

2. Keeping the state coordinator of career education informed of problems which may impede the implementation of career education. This is accomplished in several ways:

- a. providing the state career education coordinator with minutes from monthly regional meetings;
- b. telephoning or writing memorandums to the state coordinator on problems which may surface at a time other than a monthly meeting; and
- c. reporting to the state coordinator at planned meetings for regional career education consultants.

Although the Division of Vocational Education is the only one of the four Department of Education Divisions which operates on the regional concept, the Division of Public Schools has also identified curriculum consultants to serve as career education consultants for specific academic areas. These consultants operate solely out of Tallahassee although they are assigned to work with a specific region. Their role in the career education effort involves the following:

1. advocating the position that preparation for work, paid as well as unpaid, is one of the goals of education in the basic skills and subject areas;
2. defining the relationship between the basic skills and subject areas and career education;
3. outlining the role which basic skills and subject areas play in career education;
4. including the elements of career education (career, educational, and economic awareness; beginning competency; attitudes and appreciations; self-awareness; decision making; and employability skills) in the planning and development of curriculum materials for the basic skills and subject areas;
5. assisting in the planning, development, and dissemination of strategies for evaluating career education experiences in the basic skills and subject areas;
6. where appropriate, including the elements of career education in minimum student performance standards for the various program categories and chronological grade levels and, accordingly, ensuring that they are included in the statewide assessment program;
7. including treatment of the elements of career education as a criterion to be utilized in the textbook selection process;
8. disseminating materials which demonstrate the necessity for and the utility of the basic skills and subject areas in varying aspects of the world of work;
9. provide technical assistance to local district personnel in the most effective strategies and resources for career education in the basic skills and subject areas;
10. through the statewide conferences for the specific areas in early childhood, elementary, middle, and secondary education:
 - a. providing a showcase for career education practitioners within the respective areas; and
 - b. ensuring that the publishers' representatives feature career-related materials in their exhibits; and
11. participating in the state career education conferences.

In summary, the responsibility of the field career education consultants is to work directly with local school districts in the development, implementation, and evaluation of career education.

To facilitate and assist the field career education consultants in their role, each division of the Department of Education has appointed a coordinator. The division career education coordinators work directly with the field consultants to assist them with any problems they may have in the delivery of technical assistance to local school districts.

The coordinators also provide all staff development for their respective career education consultants, as well as plan and produce all statewide workshops related to career education.

THE ROLE OF TEACHER EDUCATORS IN THE DISSEMINATION OF PART D PROJECTS

Rutherford E. Lockette

This discussion focuses on the need for vocational teacher educators to assume a significant role in the dissemination of Part D projects. An attempt will be made to provide a background for this discussion by: describing the relationship to and/or the importance of three major components of viable vocational education programs. Those components are: the local school system, the state department of education, and the teacher education institution. The autonomous and quasi-autonomous nature of the three major components of vocational education will be briefly described; the basis for initiating essential cooperative efforts will be noted; and finally, specific things which teacher educators can do to disseminate Part D projects will be addressed.

State departments of education have specialists in major areas of vocational education. They are exposed to project efforts which are in various stages of development throughout the state. They often assist local school systems in developing and implementing them. After projects are approved, state department personnel monitor them. The state department monitor is able to provide input from his/her contacts with other projects as well as from his/her expertise in specific areas of vocational education. This input can be extremely valuable. State departments of education can and do contribute significantly to efforts of this type.

The local school systems are on the front line of educational action. Competent professionals deal with a variety of programs in attempts to prepare youths and adults for entry into and progress in the world of work. They often make contributions to other educational objectives which go beyond vocational development. In discharging their responsibilities, local professionals may, at times, develop proposals for new approaches to the solutions to problems. In the normal process, representatives of state departments of education become involved, at least to some extent, in the development and implementation of Part D projects.

The third component of viable vocational education programs in a state is that of vocational teacher education institutions. Colleges and universities have major responsibility for preparing and updating vocational education professional personnel. They also assume the major responsibility for research and service activities. Colleges and universities are staffed with highly prepared individuals who are experts in special areas of vocational education. Viable professional development programs, services, and personnel should be utilized as an integral part of a total vocational education state system including Part D projects.

The involvement of state and local agencies in education is so interrelated that they can only be separated for the convenience of discussion and, hopefully, some degree of understanding. In the United States, education is a state function. Each state is autonomous in the operation of its school system under constitutional provisions. In addition, state boards* of education have been established

*Governing bodies in local districts are variously known as the board of education, the school board, the school committee, the board of school directors, or the board of school trustees. Throughout this paper, the term board of education is used as all inclusive.

and granted the overall responsibility to provide leadership for and the management of public education within each state. Substantial financial resources are also provided by the legislatures through the state boards of education. These boards are accountable for these resources within the broad framework of legislative provisions (Reeder).

Boards of education in most states have been granted rather wide powers of legislative authority. States have delegated most of the details of management to local boards, insisting only that they meet minimum state requirements. Thus, the state may require certain minimum salaries to be paid, not fewer than a specific number of school days per year, and the employment of teachers meeting certain standards of preparation. Beyond these requirements, local boards have great latitude--there is no ceiling on the quality of local schools (Douglas and Grieder).

From this brief review, one is reminded that local boards of education, and local school systems, operate at the pleasure of state boards of education. However, the responsibility and authority delegated to local boards of education enable them to function as quasi-autonomous agencies.

Colleges and universities in the United States grew out of the influence of higher education in Europe. However, during its more than two hundred years of development, it acquired a uniqueness of its own. Public and private institutions were organized under state laws. However, they have generally enjoyed unusual freedom from institutional control by the state when compared with their European counterparts. One might expect that this freedom would have led to diversity and difference among institutions of higher education. This has not been the case. Colleges and universities show an unusual amount of uniformity in legal structure, executive organization and curricular practice (Maehlman).

Despite the fact that there are significant commonalities among colleges and universities, each institution has its uniqueness in broad terms.

Much of what can be said is common to all the types of higher education. However, each has its own history, its own belief systems, its own (internal and external) political processes, its own talents. Whether they are public or private, they tend to resist homogenization and attempts to reduce their internal organizational autonomy. They also resist being considered step-children to other institutions (and agencies) (Herr).

Colleges and universities hold dearly to the concept of academic freedom and tenure. This principle does not allow a faculty member to teach and otherwise do as he/she pleases. It holds that individuals can teach or otherwise pursue the truth within an organized body of knowledge. Should a controversy arise about what is the truth, a jury of experts in the area of the controversy renders a judgment. The principle of tenure protects the faculty member in the pursuit or teaching of the truth (Van Till).

From this brief overview of the major components of viable vocational education programs, an attempt has been made to show that state departments of education are autonomous bodies, and that local boards of education as well as colleges and universities are quasi-autonomous in their authority. This is particularly true within the broad framework in which they function. These institutions and agencies, although essentially autonomous, are vitally important to the development and maintenance of virtually every aspect of viable vocational professional development programs.

It goes without saying that all states are not equally endowed in the area of vocational teacher education. Obviously, staff limitations may severely affect the dissemination of Part D. projects in

some states. This does not suggest that those states are not willing to disseminate Part D projects. It simply means that the burden of other tasks may limit their ability to engage in this and other service activities. With this background in mind, it is important to know that vocational teacher educators can be a major force in dissemination of Part D project results.

It is important that the knowledge gained through Part D projects be made available to other secondary school teachers as well as teacher educators and state supervisors. These persons will also profit from them. Because of the major role which colleges and universities have in teaching, research, and service, it follows that whenever a professional vocational educator needs to master new skills, new knowledge, new attitudes, and new behavior, teacher education can make significant contributions to them. A number of steps will be presented with the hope that they will improve the dissemination of Part D projects and other program development projects.

1. There are numerous instances when projects have been developed, implemented, and reported long before teacher education institutions have been made aware that they exist. Because of the distances between many school systems and universities, it is extremely difficult for teacher educators to be aware of all of the projects that are under way. In order to be assured that vocational teacher educators are informed of new project activities in the schools, a means of informing them of new and emerging project activities should prove very helpful. This will enable teacher educators to become aware of projects as they unfold. Project outcomes will more likely be disseminated through formal and informal discussion. Informing teacher educators of new project activities could be made a part of the approval process.
2. Teacher educators have a high degree of expertise in many areas in which vocational education programs conduct projects. Because of the complimentary capabilities of secondary school teachers, teacher educators, and state department supervisors, their input can enhance the planning and implementation of Part D projects. It is suggested that local school systems and department of education personnel invite teacher educators to participate in the development of proposals as well as the implementation of projects. In addition to the value which will accrue to the project, the knowledge of the project will become known to other teacher educators and to their students as well.
3. Teacher educators often assign term papers which are designed to expose students to new ideas and new approaches to the solution of specific problems. These assignments could often be improved by the inclusion of a review of selected Part D projects. Course work which students too often find meaningless could be made meaningful by the inclusion of current activities.
4. Workshops can be developed which are designed to develop the participant to the point that he/she has an operational understanding of selected Part D projects. The outcome of the workshops would be to prepare the participants to the point that they can replicate the Part D project. The workshop, so developed, could be rotated to a number of locations to make them convenient to teachers, administrators, and other vocational education professionals. Teachers and others who developed the innovation should be employed as workshop principals.
5. Teacher educators can be included in local planning sessions. Local planners may consider extending invitations to teacher educators.

6. Local school personnel involved in creating or implementing projects may want to prepare a summary of their activities including objectives, procedures, description of pretesting and/or evaluation procedures. These could be made available to teacher educators.
7. The state department of education personnel may want to prepare summaries of exemplary projects that have come to their attention. These summaries can come from within or outside of the state. The availability of such compilation to vocational teacher educators will increase discussion.
8. The state department of education may want to encourage the use of innovative ideas by earmarking funds for local systems to use in adopting or adapting these projects.
9. Local systems in which projects have been successful may be encouraged to make project teachers available for consultations and/or workshops.
10. Arrangements could be made for interested personnel to observe projects in action in or out of the state. Transportation could be provided through state funds allocated for this purpose.
11. Teacher education institutions may wish to provide opportunities for teachers in training to spend from one to two weeks working with project teachers.
12. Local systems may wish to provide incentives for teachers to engage in developing projects following observations and workshop experiences.

It is the responsibility of each professional in vocational education to possess (or rapidly achieve) expert literacy in the area of his/her position assignment. Probably the greatest contribution which teacher educators can make to the dissemination of Part D projects is that of assuring that all vocational program completors are true professionals in vocational education. This applies to teachers, supervisors, directors, and other professionals associated with local school systems as well as with vocational education professionals associated with state departments of education and teacher education institutions. The major responsibility for the development and maintenance of expert literacy rests with each individual. Although other agencies and institutions can be of assistance to the individual in developing and maintaining expert literacy, this initiative cannot be assumed by any other individual or group.

There are a number of things that professionals in vocational education should do in developing and maintaining expert literacy. A few of these will be noted below.

Membership in Vocational Education and Related Organizations

There are a number of professional organizations which work in the interest of professionals in vocational education. Some of these organizations represent local or regional interests while others represent state or national interest. In most instances, they interrelate in their concerns. Usually, one of the concerns of professional organizations is that of professional and technical development of its members. Professional and technical development is achieved in part through periodic meetings, conferences or conventions. Special meetings to deal with specific topics are not uncommon.

Professional organizations commonly publish a journal, newsletters, and other information which is of value in the continued professional and technical development of its members. Because of the

specialization of individual professional assignment, *not* all of the articles included will be of value to each individual. However, a great many of them will be of value in maintaining expert literacy or in maintaining general professional literacy.

In addition to vocational education organizations, there are other organizations which have knowledge, techniques, and processes that are common to our concerns. Many of these organizations publish trade journals and other material which are of value to the continued professional or technical development of vocational educators. Some of these groups have education committees which have, as a part of their role, keeping members abreast of new developments. The American Welding Society, The American Foundry Society, The American Home Economics Association, The American Dietetics Association, and The American Society of Training and Development are examples. Vocational education professionals may wish to publish the results of Part D projects in some of these trade journals. These groups also hold periodic educational meetings. They also provide services to schools and other interested groups.

Attending Workshops, Institutes, Seminars, and Courses

Businesses, industries, and government agencies often sponsor workshops, institutes, and other programs which are geared to improving the performance of the participants. Colleges and universities often offer short and regular length workshops, institutes, and courses geared to upgrading professionals in the field. In addition, new or revised courses are of value in improving the performance of professionals in vocational education. There are times when a course which has been substantially revised bears only slight resemblance to the one it has replaced.

An important means of keeping current with new developments in vocational education is through the use of information retrieval systems. Vocational education material is retrieved through the Educational Resources Information System (ERIC), which is headquartered at The Center for Vocational Education, The Ohio State University. These materials are readily available through most college and university libraries and through many public libraries. The location of ERIC material in the various states can be obtained from the research coordinating unit associated with the state department of education.

Information which is stored in the ERIC system can be accessed through either manual or computer searches. The use of this system is not only valuable to professionals in vocational education but is imperative to their keeping up to date.

Recommendation

It is recommended that each teacher, supervisor, and administrator in vocational education become a true professional in the pursuit of his/her responsibilities. Colleges and universities stand ready and willing to be of assistance to you when invited to do so.

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DISSEMINATION—MAGNIFYING THE R AND D DOLLAR

Duane R. Lund

Each year, the federal government alone now allocates nearly \$20 billion for research and development in all fields. It would be difficult to estimate how many more billions are invested by state and local units of government. Hopefully a great deal of new knowledge is being generated. But if this new knowledge is not broadly disseminated and put to everyday use, the cost/effectiveness ratio of this gigantic investment becomes unbearably low. Historically, Congress has been generous in its support of research, but, quite frankly, many congressmen are of the opinion that of all the R and D programs in governments, education probably does about the poorest job of dissemination.

Congressman Albert Quie (R.—Mn.), ranking Minority Member of the House Education Committee, and Roman Pucinski (D.—III.), former Chairman of the House Education Subcommittee on Education, have both expressed on numerous occasions their frustration and disappointment with the effectiveness of the dissemination efforts of the Education R and D community. Those directly responsible for the vocational research and development efforts in the U.S. Office of Education and the National Institute of Education (specifically Howard Hjelm and Corrine Rieder) recognize how critical effective dissemination is to all of their programs, and they and their staff people have devoted a tremendous amount of time and energy to dealing with the problem.

If we look outside the education community, we find many effective models for dissemination. Perhaps the best known is in the field of agriculture. The R and D efforts of the land-grant colleges and universities have been successfully translated into farm practices in relatively short periods of time through the University extension and county agent system.

We have an excellent example in our Staples Vocational Technical Institute wherein a research and demonstration irrigation farm has resulted in more than 300 farmers adopting irrigation practices in our service area in the past eight years.

Perhaps the best example of the dissemination of successful practices in the field of business is in the area of fast food franchises wherein MacDonalds, Dairy Queen, Burger King, and others can literally guarantee success to those who will follow their recommendations.

In the field of industry, companies literally steal new techniques and knowledge from each other.

Agriculture, business, and industry differ from education in that they are profit motivated. However, in the area of health—where the profit incentive is only slightly more relevant to dissemination than in our profession—new knowledge and techniques are much more rapidly put into everyday use.

Perhaps we are guilty of a sin of omissions by not consulting more with dissemination experts in these other disciplines, and no doubt there is much we could learn from Madison Avenue.

Nevertheless, we have had hundreds, yes thousands, of examples of the transfer of successful educational practices from one institution to another. Why do the results of some R and D efforts find their way into the classrooms of our nation while others do not? Why are the successful teaching practices in one school picked up by neighboring schools and sometimes disseminated across the entire nation while others go unnoticed? A great deal of money and human energy has been invested in trying to find answers to these questions. A search of the literature gives us some insight.

Glasser tells us that a study of the *adapters* of new ideas, methods, and techniques may be as profitable as studying the methods and techniques of those who have been responsible for the dissemination process. He talks about the "complex human problem" of "how to get organizations, institutions, and individual decision makers to develop an attitude or climate of nondefensive, open-minded willingness to review their standard practices, coupled with a receptivity to change which may be required in order to utilize promising innovative procedures or policies."

Glasser goes on to list what he calls the "five most relevant factors" in influencing the likelihood of utilization of a particular innovation by others:

1. *A leadership style* that sets a role-model of willingness to entertain challenge or criticism of one's own operation: a style that encourages a nondefensive, self-renewing organizational climate which in turn facilitates open three-way communication (up, down, laterally); provides opportunity for periodic review of the organization's goals, practices, and program effectiveness; and yet affirms respect for staff competence and rewards, or sanctions innovative problem solving efforts.
2. *Capability of staff and availability of necessary resources* in a potential user's setup to implement the innovative practices.
3. *Suitable timing*: having one's attention turned to the innovative idea at a time of specially felt need or under a set of circumstances that promote receptivity to the idea.
4. *Sensitivity to context* factors such as customers or clients, communities, governmental controls, and public opinion. The way in which an organization perceives its relationship to its larger social context is an important determinant of the kinds of change it wants or can accept.
5. Skill or organizational leaders in *working through resistances* that may be mounted against any given proposed change.

Looking at it in another way, Glasser lists ten "forces" which have been highly influential in considering strategies for bringing about planned change. He has identified these ten forces as "needs"—thus:

1. *Need for leadership* (stimulation, encouragement, positive reinforcement, direction, climate-setting, role-making; tenaciousness, canniness in planning strategies and follow-through provided by the leader(s) or decision maker(s)).
2. *Need for outside pressures* or changes that impinge upon an existing system and convince it that it needs to change—or simply force it to change.
3. *Need for surface information* from outside or inside, such as egosyntonic feedback of progress that kindles desire to surpass previous achievements.

4. *Need for aroused will* on the part of people with some influence in a given situation; concern and feeling of urgency in response to perceived crisis; recognition of need for improvement; aspiration to perform better.
5. *Need for incentive system* that provides rewards for certain changes or kinds of behavior.
6. *Need for legal, administrative, or rule changes affecting* existing system.
7. *Need for structural reorganization:* organization rearrangement.
8. *Need for stimulation of shared interest* in learning about how to solve common or given problems; perceived need for interdependence—for working with others to solve certain problems.
9. *Need for sufficient resources* that are available or that can be created, begged, borrowed, or stolen to carry out the given change.
10. *Need for internal deterioration:* the corruption of the spirit of humanity and its organizations, the contagion of inner disintegration; or at least the onset of boredom, loss of enthusiasm or drive, flagging of zeal or interest . . . and thus increased readiness for change.

Early last year the Stanford Research Institute made an evaluation of the National Diffusion Network for the Office of Education. Some of its findings are particularly significant; let me paraphrase them:

1. The superintendent of schools is probably the most influential change agent.
2. In studying the teaching staff of schools identified as adopters of innovation practices, a high correlation was found between innovativeness among teachers and the following: (a) level of education, (b) morale or job satisfaction, (c) attendance at out-of-town educational meetings, and (d) varied experiences outside of education.
3. Projects initiated on a problem solving basis were more likely to be incorporated into the permanent school program.
4. Other incentives for individuals in the adoption process included pressure or coercion, subsidies such as additional funding, and increased prestige resulting from successful innovation.
5. Factors resistant to adoption included: (a) the absence of an effective change agent, (b) ambiguous goals, (c) low interdependence among staff members, (d) varied abilities among both teachers and students, (e) role performance invisibility, (f) monopolistic character of schools in giving educational services to the community, and (g) increased vulnerability of schools to criticism as a result of increased visibility through new programs.
6. Other deterrents include the "spare resources of small districts" and the "cumbersome bureaucracies" of the large districts.

It may be noted that in studying the literature on our subject, most reinforcing elements for dissemination, as well as most deterrents, come under the heading of "human factors." Dr. Marvin Feldman, President of the New York Fashion Institute, supports this concept in his "Old Lady

"Bloomstrom" theory of why new programs or innovations work in one setting and not in another. Feldman says that "given reasonable financial, administrative, and community support, the difference between success and failure usually boils down to one or two individuals, seldom more." He states that at the end of several years with the Ford Foundation, he was directed to visit the educational projects he had funded and make some evaluation (admittedly rather subjective) of the programs in terms of trying to identify why some were apparently more successful than others. He concluded at the end of his very first visit to a project that the key to the success of the program was an older teacher who was commonly referred to (and not always with affection) as "Old Lady Bloomstrom."

As Feldman continued his visits he found that whether or not programs succeeded or did not do as well depended on whether or not there was at least one "Old Lady Bloomstrom" involved. Sometimes these change agents were teachers; sometimes they were project directors; and occasionally, they were administrators. Usually they could be characterized as energetic, enthusiastic, outgoing, physical (sometimes they hugged kids; sometimes they shook them), and had sensitivity for others.

In conclusion, I would like to share with you our experiences—that is, the experiences of Independent School District No. 793, Staples Area Schools, in Minnesota. Since 1968 we have led our state in the number of dollars per pupil received from federal and foundation grants. As a result our students have been the beneficiaries of numerous new programs and teaching techniques. Evaluations indicated that nearly all of these projects brought us something new and worth the investment. However, the dissemination provided for each of these projects was quite minimal. Nevertheless, through publicity and word of mouth many visitors did come to our school district; one elementary school had more than 4,000 visitors a year for several years. In the process we did learn some things about dissemination. Although no systematic study was made of adoptions, we came to realize that programs, techniques, teaching devices, etc., developed in Staples were having an impact on other schools. We concluded that because of the hundreds of thousands of dollars invested by the state and federal governments and by private foundations in our schools, we had an obligation to make a more systematic effort at disseminating the fruits of our work. A proposal was made to the Bush Foundation to thus magnify the dollars already invested in our district through a dissemination project to be called "TRAN-Sepp." Funding was received, and we proceeded to reach out to the other schools of our state. Just like the "kids" we teach, we learned by doing. As it turned out, the experience was worth more than all of the information we had gleaned from the literature or the advice we had received from those who had been in the business.

Based on the success of Tran-Sepp, we were recruited by our State Department of Education to participate in the dissemination of validated Title III projects and were given that responsibility for both northern and central Minnesota. We are now in the third year of that project, and we are still learning.

Based on these experiences, I would like to share with you a few conclusions which may accent what you have heard at this conference or what you will find in the literature:

1. People do make the difference, both in the case of the disseminating institution and the adopting schools. Those in charge of dissemination must really believe in the product. They must be able to demonstrate an enthusiasm for what they have to disseminate. But, the ability to sell must not be a substitute for sincerity. The disseminator must have a commitment to his/her product, and he/she must care whether or not other schools or teachers adopt what he/she has to communicate.

2. The emphasis and primary concern must be with the adapter (the receiving agency or individual). As one of our facilitators puts it, "the disseminator needs to become intimate with the adopting school." The school's or teacher's needs and interests are paramount. The teacher may need help in identifying the problems and stumbling blocks to be faced in his/her bailiwick, and guidance should be available to help him/her solve these problems. If, at the end of the teacher's first contact with the disseminator, he/she is not convinced that he/she wants and needs the new idea or concept or technique, the cause is lost. On the other hand, care must be taken so that the disseminator in his/her enthusiasm does not sell someone a product he/she does not need or which is inappropriate.
3. "Learning Bazaars" are an effective device for disseminating the results of educational innovation. We have found that it is most helpful if the displays and general decor are exciting and conducive to creative thinking. We also try to feature a number of techniques, learning games, projects, teaching devices, or concepts which can be easily and cheaply adopted so that everyone will—hopefully—go away from the "fair" with something he/she is likely to use.
4. Dissemination workshops or inservice programs must be both interesting and fun. Again, the presenters must know as much as possible about the adopting agency.
5. If the proposed innovation is going to mean sizeable changes in the school or even in one classroom, it is critical that those who will be most affected and most involved in making the changes have the opportunity to visit *on-site* the program under consideration. "Teacher travel" is one of the very best investments any school can make in its staff.
6. Replication usually costs only a fraction of innovation. But there is usually some additional cost to get a new program under way. In this day of fiscal crisis in our schools, mini-implementation grants are critical to successful dissemination.
7. In summary, people do make the difference. I don't have much faith in dissemination via the printed page. To quote a television commercial in our part of the country, "it is people helping people" that makes the difference.

As our schools are caught in a financial crunch, we should probably take seriously the old adage, "If it ain't broke, don't fix it." And yet, in another sense, the fiscal crisis facing our schools dictates an urgent need for developing more economical ways of educating the youth of our country. Furthermore, the truth of the matter is that our nation *can* afford to allocate many more dollars to education, but this is not going to happen until the faith of the people in our schools has been restored. We have a truly critical need for new techniques, programs, and devices to help our teachers do a better job and, then, to disseminate this knowledge across the length and breadth of our country until it is in everyday use.

STRATEGIES FOR THE NATIONAL DISSEMINATION OF PROJECT RESULTS

Joel H. Magisos

The purpose of this conference has been to increase our ability to disseminate the results of our work. Dissemination of results is only one part of a strategy that might be used to achieve impact of innovative projects. What has been the record in achieving impact with R&D-based innovations? One important study reports that:

... the available data does not indicate that vocational education research and development (R&D) findings and products have had an influence on the knowledge, skills, or employability of large numbers of students (COVERD, p. 1).

Another study (Development Associates) indicates that the continuation of activities at Part D project sites has been disappointing.

Notwithstanding these earlier disappointments, we all would like to have an impact. We know that our impact won't extend beyond our immediate contacts without dissemination, possibly on a national scale. There are some existing systems which facilitate dissemination. These require that our results be put in a form that is acceptable to both the systems and the potential users. Our experience with dissemination tells us that:

1. Too much of our reporting is poorly done; our reports are what others use to judge us.
2. Our information resource systems and dissemination networks won't ensure dissemination of specific information; even so, we aren't using these systems and networks to full advantage.
3. Most of our target audiences need help in passing through stages of awareness, interest, evaluation, trial, and adoption.
4. Members of our target audiences adopt at different rates; some want our work before it is done, others aren't aware or interested until nearly everyone else is using it, if ever.
5. Some of our findings and products are easier to adopt than others; those more difficult to adopt will require more intensive dissemination efforts.

In view of these observations, I've organized this presentation to include:

1. Preparing reports and publications,
2. Using the information resource system, and
3. Helping target audiences adopt innovations.

PREPARING REPORTS AND PUBLICATIONS

One project director imagines Heaven as a place where one can do research without ever having to write a report. One of the first project directors whom I ever knew complained that the reporting required by his project sponsor left very little time for research. Another confided that his most difficult task was preparing popular versions of his technical reports. Still others squeeze a phenomenal number of publications out of a single project. Publication is the principal earthly reward for some project directors. It is the means by which they communicate with colleagues, record their findings, and qualify for promotion. The primary function of all reporting is to inform. In our field we have the responsibility of actually improving programs; in fact, the new vocational education legislation says a contractor must "... demonstrate a reasonable probability that the contract will result in improved teaching techniques or curriculum materials within 5 years. . . ."

Desired Characteristics of Reports and Publications

Reports and publications, to effectively communicate, should have several characteristics:

1. They should be based upon factual data.
2. They should be written clearly, concisely, precisely, and phrased in unambiguous language.
3. They should be organized logically, with a consistent style throughout.
4. They should be written in a tone of appropriate modesty.
5. They should be targeted to the audience for which they are intended.

Different readers of reports or publications may have different purposes. Some may draw inferences for policy making. Some are looking for solutions to problems. Others are looking for a basis for further work. All will make some judgment about the quality of a specific project from reading the report or publication.

Routes to the Readership

Who are the readers of reports and publications? First of all, I think we should face up to the fact that the readership is very small. Sponsors require reports and publications, and we presume that they read them. Frequently, they pay someone else to critique or analyze them. When the work involves a policy question, policy makers or their advisors will be interested in the conclusion from which they can draw implications. This group includes legislators, board members, and advisory groups. Recommendations will be heeded to the extent that they are relevant to policy makers and the policy questions. Administrative decision makers may be interested, too, if the recommendations are practical and understandable. However, few of these groups actually read the reports—they depend on someone's summary, if only the media's. The diversity of these groups suggests that one publication will not serve all groups equally well.

Project work is often reported in two or more forms. First, the sponsor usually expects a final technical report meeting certain specifications. This report is usually in the form of a duplicated typewritten manuscript. It may find its way into a national information system such as ERIC and be available in microform or paper copy from a reproduction service or library.

Another way to share our work is through professional journals and magazines. These have regular subscribers who selectively read articles of interest. Such periodicals as the *American Vocational Journal*, *Career Education Digest*, *Journal of Career Education*, and *Journal of Vocational Education Research* would be likely places to report innovative projects. Each would require a different slant. It's best to review the periodical to which you plan to make a submittal.

With respect to formal reports, the style is more standardized. The following suggestions are intended to help you make your report acceptable to an information system and thereby available to others all over the nation.

Organizing Reports or Publications

It is much easier to write or read a report or publication which is well organized. Following some conventions and using common sense will go a long way toward improving communication. We have all read papers which were sequenced poorly, had serious gaps in argument, contained extraneous information, or beat a few points to death. Therefore, the writer needs to begin with an outline.

An Outline

The following outline provides some guidance for the format of an R&D report and organization of the substance; however, specific outlining is necessary for most research publications.

1. Front Cover
2. Preliminary pages:
 - Author's Abstract or Summary
 - Title Page
 - Preface
 - Table of Contents
 - List of Illustrations and Figures
 - List of Abbreviations and Symbols
3. Body of Report:
 - Introduction, including a Statement of the Problem
 - Methods of Procedures
 - Results
 - Conclusions
 - Recommendations
4. Supplementary and Appendix Materials:
 - Bibliography or References
 - Glossary of Terms
 - Appendixes
 - Pictures or Illustrations
 - Tables
 - Index
5. Back Cover

Outlining

Most of us learned the rudiments of outlining in elementary school and have applied it ever since. Nevertheless, we need to keep a few points in mind.

1. The only single heading is the title.
2. Main divisions must be chosen.
3. Main division heads should cover everything, be mutually exclusive, and be consistent with each other.
4. Subheads should be carried to as many subordinate levels as possible.
5. It is easier to drop a subhead later than to add it.
6. There should seldom be a single subhead.
7. Labeling can be done by alternating alpha and numerical characters or by a system of decimals.

Writing to an outline is much easier in the long run than reorganizing random prose.

Style

Headings and subheadings in the final manuscript will follow naturally if there is a good outline. The proper use of headings and subheadings contributes much to a publication's communicability. Most writers develop preferences, and I have mine. A style manual such as Turabian or APA can be helpful in developing a style.

A style manual also is helpful in developing reference notations or footnotes. The whole idea of references and footnotes is to give proper credit and to assist the reader in locating the reference. The very reputation of a researcher rides on strict avoidance of plagiarism, not to mention copyright infringement.

Communicating the Concepts

I happen to believe that the test of a writer is his or her ability to communicate clearly and that the simple declarative sentence is one of the most powerful communication tools. Statistical expressions are communicative to those who have learned the language, but tables, figures, and pictures are more communicative. Too much of our literature contains unnecessary technical jargon and complicated sentences.

Using Language Effectively

Concrete rather than abstract language can help; for example, a zipper is more concrete than the word fastener. Fastener conjures up images of buttons, bows, snaps, nails, bolts, and screws. I once saw handcuffs fastening a man to a post. Positive language communicates more effectively

than negative, for example, I could have said negative language is less effective than positive. Economical language is more effective.

1. Avoid replacement of working verbs.

- *reduce* vs. effect a reduction
- *improves* vs. operate to improve

2. Avoid unnecessary words.

- *if* vs. in the event that
- *because* vs. in view of the fact that

3. Avoid redundancy.

- *audible* vs. audible to the ear
- *red* vs. red in color

4. Avoid being ostentatious.

- *end* vs. terminate
- *begin* vs. institute

5. Use decisive language.

- *3 mm* vs. negligible
- *2 kg* too much vs. excessive

6. Use precise language.

- *stress* vs. strain
- *calibrate* vs. adjust

Nothing beats a rigorous review by an uninvolved critic. It is amazing how language is perceived when unencumbered by the experiences of the writer. The reader is always right.

Representing Data Effectively

It has been said that there must be sufficient data and that it must be representative of the domain under treatment. Data are the numerical representations of a phenomenon. It is usually advisable to graphically plot the information.

Three statistical representations are commonly used: measures of central tendency, measures of dispersion, and correlations. Measures of central tendency include the mean (average), mode (most frequent), median (halfway point), and quartile (boundary of four intervals). Measures of dispersion include the range (lowest to highest), average deviation (average deviation from the mean), variance (mean squared deviation), and standard deviation (square root of the sum of the deviations squared divided by N). There can be positive correlations (up to +1.0), negative correlations (up to -1.0), and no correlations at all (0,0). None of these requires explanation to the experienced reader of research. But are the readers going to be researchers?

Tests of statistical significance (representations which show the chance of error) do require some explanation in the form of equations to assure the reader of the technique and allow replication. But, again, are the readers going to be researchers?

Most statistical representations can benefit by a figure, table, or chart. For example, a contingency table is essential to the interpretation of a chi-square numerical representation. A smooth curve or a histogram brings a batch of data to life.

Schematics

Various systems of schematics have been developed. For example, pipe or electrical schematics are essential to the builder or repairperson. Organizational charts illustrate the formal structure of an agency, if not the actual or informal structure. Information flow, plant layout, material flow, and process systems can hardly be represented without illustration. Guidance can be found in existent literature or from templates available on the market.

Appended Materials

The appendix of a publication can be useful in at least two ways. It is a place for essential background materials. It relieves the main body of the text of expanded detail that might divert attention and break the flow of thought. But even an appendix can be overdone; moderation is advised.

Preparing the Manuscript

A final camera-ready copy of a publication should observe all of the usual conventions. Because it is likely to be part of a microfiche-based information system and is likely to be photocopied for several generations, it should be typed double-space in high contrast (e.g., black on white) on high quality paper. A good test would be to subject the original copy to three successive generations of photocopying. If it is still readable, it will yield good microfiche, but don't submit the third generation copy to ERIC. Send the original!

Top, bottom, and right-hand margins should be one inch. Left-hand margins should be 1½ inches to allow for binding. Pages should be numbered consecutively in Arabic numerals centered at the bottom of the page. When printed on both sides, place odd-numbered pages on the right. Filled-in or broken letters, illegible text or illustrations, odd sizes, or other imperfections are not acceptable for ERIC microfiching. Pages of all material should be 8½ x 11 inches. Any method of binding is acceptable to ERIC.

Submittal to ERIC

Until September 14, 1977, there was cause for confusion about getting materials into ERIC. With the move of the ERIC Clearinghouse on Career Education to The Center at Ohio State, this should no longer be a problem. For final reports of projects funded under Part D the procedure is to forward these through channels. Rest-assured that they are sent to us by USOE and that we do keep track of them.

SYSTEMS AND NETWORKS

Vocational education is served by a national information resource system and a linked dissemination network. The system and network provide a channel for EDP to disseminate its findings and for educational practitioners to find solutions to problems. Knowing how to submit and retrieve materials is important to EDP workers—so is knowing the potential users of the system in avoiding duplication, building on-existent knowledge, synthesizing earlier work into theoretical constructs, and discovering gaps in knowledge. The linked network of research coordinating units (RCUs) makes vocational education unique among educational fields, but progress is being made at the state education agency level through NIE's capacity building program.

ERIC—The National Information System for Education

The Educational Resources Information Center (ERIC) is the national information system for education. It is made up of an ERIC Processing and Reference Facility, ERIC Document Reproduction Service (EDRS), and sixteen Clearinghouses under the control of Central ERIC in the National Institute of Education. Documents (reports and publications) are submitted to Clearinghouses for possible selection. Selected documents are sent with resumes prepared by Clearinghouses for input to the publication, *Resources in Education* (RIE). Documents are filmed on microfiche by EDRS. The microfiche is sold to more than 600 standing order customers, who maintain complete ERIC microfiche collections.

ERIC/CE—The ERIC Clearinghouse on Career Education

The ERIC Clearinghouse on Career Education (ERIC/CE) is now located at The Center for Vocational Education at The Ohio State University. Its scope includes adult-continuing education, career education, and vocational-technical education. Vocational educators may submit their research, instructional, and other materials to ERIC/CE for possible inclusion in the ERIC system. ERIC/CE during the first year at CVE, will:

1. acquire 4,500 documents;
2. prepare 2,900 documents for input to RIE;
3. prepare 1,900 journal articles for input to *Current Index to Journals in Education*;
4. develop 23 information analysis papers;
5. answer 8,000 questions from users.

Upon request, the Clearinghouse will provide:

1. information about the system, the Clearinghouse, The Center for Vocational Education and AIM/ARM;
2. information about the location of documents in the ERIC system or other sources;
3. lists of resource persons, computer search services, and microfiche collections in the user's own state;

4. information about the Clearinghouse products and computer search services, the latter available on a cost recovery basis.

The ERIC system, serving all of education, is supplemented by *Abstracts of Instructional and Research Materials for Vocational and Technical Education* (AIM/ARM), designed especially for vocational education. Starting with the next issue, it will be renamed *Resources in Vocational Education*.

With more than 600 ERIC microfiche collections, thousands of RIE and AIM/ARM subscriptions, and hundreds of computer search service agencies available, the national information resource system for education is a practical reality.

The Linked Network for Dissemination

The state research coordinating units (RCUs) identified their role in dissemination in 1967. Since, many RCUs have worked with The Center for Vocational Education and ERIC to develop their own capacity to provide information services to vocational educators. Some provide computer search, microfiche duplication, and document loan services. Others repackage information in special publications or in regular newsletters. The RCUs have served as a model for all of education and, in some states, served as the forerunner for a system to serve all of education.

RCUs often serve as the input agent for ERIC and AIM/ARM because they fund and coordinate vocational education R&D in the state. ERIC/CE and AIM/ARM at The Center will endeavor to nurture this linked network of special agencies. In the past, this nurturment has included development of a *Guide*, training of information specialists, a user study, and a pilot program.

Some of you may be familiar with the education-wide information service being offered in a number of states under NIE capacity building grants. Soon, services to SEAs, ISAs, and LEAs will be available through Regional Exchanges operated by five regional educational laboratories serviced by four national contractors. This system will be known as the Research and Development Exchange. NIE is planning with these centers and laboratories now.

As each of these parts of a loosely linked nationwide network falls in place, it will be easier to disseminate our work—and to learn of the work of others.

HELPING TARGET AUDIENCES ADOPT

As mentioned before, most of our target audiences need help in passing through the stages of awareness, interest, evaluation, trial, and adoption. We can make some conscious efforts to help them during the course of our projects.

Creating Awareness and Interest

Our target audiences can hardly be expected to be aware of, or interested in, our projects if they don't know about them. Here are some specific suggestions for creating awareness and interest:

1. Ensure that grant or contract awards are announced in appropriate places.
2. Facilitate descriptions of your project in the Project in Progress section of AIM/ARM.

3. Submit brief articles about the project to relevant journals or seek announcement in journal columns (new projects, news about members, paid advertisements).
4. Present project goals, methodology, and interim findings at conventions and meetings.
5. Prepare a project brochure for distribution at meetings and for use in answering questions.

If interest is generated, potential users will be ready to evaluate your findings or products as soon as they are finished. Timing is important, because interest unsatisfied too long will flag.

If you go about creating awareness and interest you must be prepared to deal with it. Brochures, form letters, and group visitor days may be necessary to deal with the influx of inquiries.

Providing Basis for Evaluation

Your report or publication will provide the first basis for evaluating your findings or products. The only trouble is that many would-be users won't read your full report. They will believe what is said in the press. For example, how many really read the Wilms study report? Most of the people I know read about it in the *Education Daily*, *Washington Post*, *New York Times*, or read the critiques and rebuttals that followed.

My suggestions are:

1. Carefully prepare press releases in advance and hope for the best interpretation in the media.
2. Prepare brief, attractive publications which communicate the essence of your work to the target audience.
3. Consider some innovative approaches to making your full report available to requestors; for example, the use of microfiche in lieu of paper.
4. Involve creditable persons in your projects who can serve as witnesses to the process.
5. Publish articles in journals and practitioner-oriented magazines which provide substantive information about your completed work.

When evaluating findings or products, potential adopters may call on you for help. Unless you are available for consultation on demand, it would be best to use these suggestions and other mechanisms to help potential adopters decide whether to try your findings or products. Expect requests for years to come. Remember that some people start later.

Facilitating Trial and Adoption

Evaluation of an innovation can be superficial. The adopter may decide to try it because someone else did. But when it comes to trial and adoption, the adopter may need direct assistance. Most of us aren't available for this kind of help. A few things that we can do to facilitate trial and adoption include:

1. designing our product so that they can be installed without too much direct assistance;
2. providing written assistance in the form of instructions or an implementation guide;
3. compiling lists of qualified installation consultants and making referrals (some of these persons may have been involved in the project as consultant developers or test subjects);
4. developing a training package that can be used by others;
5. facilitating the availability of necessary materials.

SUMMARY

In summary, I stated that, collectively, our reporting hasn't been very good. We've not used the full potential of our national information system, or we have been over-dependent on it. And we need to help our target audiences adopt our findings and products.

Publications are essential to knowledge production and utilization. The readership is small, but critical. A publication should be targeted to its audience, and audiences do vary; however, it should communicate clearly, following established conventions of sequence and style. Outlining is essential to organization. Concepts can be communicated more effectively with concrete, positive, and economical language. Data and concepts can be represented numerically and with figures, charts, and tables. The appendix relieves the main body of text. A camera-ready manuscript is essential. The primary mission is to inform!

ERIC and AIM/ARM provides a means of (1) making our findings and product accessible and available, (2) avoiding duplication, (3) building on the work of others, (4) discovering gaps, and (5) developing new theories. The ERIC Clearinghouse on Career Education offers a range of services to the adult-continuing, vocational-technical, and career education communities. The research coordinating units and other key state-level agencies play an essential role in linking the users to the information system.

It is not enough to prepare good publications and make them available through a system. We all need to help the target audiences through stages of awareness, interest, evaluation, trial and adoption. In the final analysis, *adoption* of new, better methods is the goal of our work.

RESEARCH AND DEVELOPMENT IMPLICATIONS IN THE LEGISLATION FOR STATE AND NATIONAL PROGRAMS

Lawrence Braaten

These comments were prepared prior to the development of the draft rules and regulations for the Education Amendments of 1976. Therefore, they do not reflect any official position of the Bureau of Occupational and Adult Education.

My comments are divided into programs for states and national efforts.

The state vocational education programs are divided into six subparts. Each section provides support for program improvement:

Section 131. Research

Section 132. Exemplary and Innovative Programs

Section 133. Curriculum Development

Section 134. Vocational Guidance and Counseling

Section 135. Vocational Education Personnel Development

Section 136. Sex Bias

Programs for national significance may be perceived from three perspectives: A program improvement perspective [Section 174 (a) (1)], a national center perspective [Section 171 (a) (2)], and a Personnel Training and Development perspective [Section 172].

Sec. 131 Research

Support of state RCUs and for contracts by RCUs—for program improvement involving:

- applied research and development in vocational education
- experimental, developmental, and pilot programs designed to test effectiveness of research findings—including programs to overcome problems of sex bias and sex stereotyping
- improved curriculum materials for current programs and new materials for new and emerging job fields
- projects in the development of new careers and occupations, such as

- mental and physical health
- crime prevention and correction
- welfare
- education
- municipal services
- child care
- recreation
- training and development projects designed to demonstrate:
 - improved methods of securing involvement, cooperation, and commitment of both public and private sectors in achieving greater coordination and implementation of programs for employment of persons in the fields described above
 - evaluation of the operation of programs relating to training and utilization of public service aides
 - dissemination of the results of contracts made relating to this section, including employment of persons to act as disseminators, on a local level, of these results.

No contract shall be made under Sec. 131 unless the applicant can demonstrate a reasonable probability that the contract will result in improved teaching techniques or curriculum materials that will be used in a substantial number of classrooms or other learning situations within five years after the termination date of such contract.

Sec. 132 Exemplary and Innovative Programs

Funds . . . may be used for contracts, as part of the comprehensive plans of program improvement mentioned in Section 131(a), for the support of exemplary and innovative programs, including—

- (1) Programs to develop high quality vocational education programs for urban centers with high concentration of:
 - economically disadvantaged individuals
 - unskilled workers
 - unemployed individuals
- (2) Programs designed to develop training opportunities for:
 - persons in sparsely populated rural areas
 - individuals migrating from farms to urban areas
- (3) Programs of effective vocational education for individuals with limited English-speaking ability
- (4) Establishment of cooperative arrangements between public education and manpower agencies, designed to correlate vocational education opportunities with current and projected needs of the labor market.

(5) Programs to broaden occupational aspirations and opportunities for youth, with special emphasis given to youth who have academic, socioeconomic, or other handicaps, including programs and projects designed to:

- familiarize elementary and secondary students with the broad range of occupations for which special skills are required, and the requisites for careers in such occupations
- facilitate the participation of employers and labor organizations in postsecondary vocational education

Other provisions relating to Exemplary and Innovative:

- Every contract made by a state for these programs shall give priority to programs designed to reduce sex stereotyping in vocational education
- provide for participation of students enrolled in nonprofit private schools
- annual program plan and accountability report covering the final year of financial support by the state for any such program shall indicate:
 - proposed disposition of the program following cessation of federal support.
 - means by which promising programs will be continued.

Sec. 133 Curriculum Development

A. Funds . . . may be used for contracts with the support of curriculum development projects, including—

- (1) the development and dissemination of vocational educational curriculum materials for new and changing occupational fields and for individuals with special needs, as described in Section 110; and
- (2) the development of curriculum and guidance and testing materials designed to overcome sex bias in vocational education programs, and support services designed to enable teachers to meet the needs of individuals enrolled in vocational education programs traditionally limited to members of the opposite sex.

B. No contract shall be made pursuant to subsection (a) unless the applicant can demonstrate a reasonable probability that the contract will result in improved teaching techniques or curriculum materials that will be used in a substantial number of classrooms or other learning situations within five years after the termination date of such contract.

Sec. 134 Vocational Guidance and Counseling

A. Not less than 20 percent of the funds available to the states under Section 130(a) shall be used to support programs for vocational development guidance and counseling programs and services which, subject to the provisions of subsection (b), shall include—

- (1) initiation, implementation, and improvement of high quality vocational guidance and counseling programs and activities;
- (2) vocational counseling for children, youth, and adults, leading to a greater understanding of educational and vocational options;
- (3) provision of educational and job placement services, including programs to prepare individuals for professional occupations or occupations requiring a baccalaureate or higher degree, including follow-up services;
- (4) vocational guidance and counseling training designed to acquaint guidance counselors with:
 - changing work patterns of women
 - ways of effectively overcoming occupational sex stereotyping
 - ways of assisting girls and women in selecting careers solely on their occupational needs and interest, and to develop improved career counseling materials which are free;
- (5) vocational and educational counseling for youth offenders and adults in correctional institutions;
- (6) vocational guidance and counseling for persons of limited English-speaking ability;
- (7) establishment of vocational resource centers to meet the special needs of out-of-school individuals including individuals seeking second careers, individuals entering the job market late in life, handicapped individuals, individuals from economically depressed communities or areas, and early retirees; and
- (8) leadership for vocational guidance and exploration programs at the local level.

B. Each state which chooses to fund activities described in paragraph (1) or (2) of subsection (a) of this section shall use those funds, insofar as is practicable, for funding programs, services, or activities by eligible recipients which bring individuals with experience in business and industry, the professions, and other occupational pursuits into schools as counselors or advisors for students, and which bring students into the work establishments of business and industry; the professions, and other occupational pursuits for the purpose of acquainting students with the nature of the work that is accomplished therein, and for funding projects of such recipients in which guidance counselors obtain experience in business and industry; the professions, and other occupational pursuits which will better enable those counselors to carry out their guidance and counseling duties.

Sec. 135 • Vocational Education Personnel Training

A. Funds available to the states under section 130(a) may be used to support programs or projects designed to improve the qualifications of persons serving or preparing to serve in vocational education programs, including teachers, administrators, supervisors, and vocational guidance and counseling personnel, including programs or projects—

- (1) to train or retrain teachers, and supervisors and trainers of teachers, in vocational education in new and emerging occupations;

- (2) which provide inservice training for vocational education teachers and their staff members, to improve the quality of instruction, supervision, and administration of vocational education programs, and to overcome sex bias in vocational education programs;
- (3) which provide for exchange of vocational education teachers and other personnel with skilled workers and supervisors in business, industry, and agriculture (including mutual arrangements for preserving employment and retirement status and other employment benefits during the period of exchange), and the development and operation of cooperative programs involving periods of teaching in schools providing vocational education and of experiences in commercial, industrial, or other public or private employment related to the subject matter taught in such schools;
- (4) to prepare journeymen in the skilled trades and occupations for teaching positions;
- (5) to train and provide inservice training for teachers and supervisors, and trainers of teachers in vocational education to improve the quality of instruction, supervision, and administration of vocational education for persons with limited English-speaking ability and to train or retrain counseling and guidance personnel to meet the special needs of persons with limited English-speaking ability; and
- (6) which provide short-term and regular-session institutes designed to improve the qualifications of persons entering or reentering the field of vocational education in new and emerging, occupational areas in which there is a need for such personnel.

B. A state may include in the terms of any grant or contract under this section provisions authorizing the payment, to persons participating in the training programs supported under this section, of such stipends (including allowances for subsistence and other expenses for such persons and their dependents) as the Commissioner may determine, pursuant to regulations, consistent with prevailing practices under comparable programs.

Sec. 136 Grants to Assist in Overcoming Sex Bias

Funds available to the states under Section 130(a) may be used to support activities which show promise of overcoming sex stereotyping and bias in vocational education.

Part B

Subpart 2—Programs of National Significance

Program Improvement

SEC. 171 (A)—FUND~~S RESERVED BY COMMISSIONER SHALL BE USED PRIMARILY FOR CONTRACTS, AND IN SOME CASES FOR GRANTS FOR:~~

Sections

131 Research

132 Exemplary

National Center

- Conduct Research and Development
- Provide leadership development through advanced study centers

Sections	National Center
133 Curriculum	<ul style="list-style-type: none"> • Disseminate Results
134 Vocational Guidance	<ul style="list-style-type: none"> • Facilitate National Planning and Policy Development
135 Personnel Training	<ul style="list-style-type: none"> • Act as Clearinghouse for Information on Contracts made by States and Commissioner
136 Sex Stereotyping	<ul style="list-style-type: none"> • Work with States, LEAs, and Public Agencies in Developing Methods of Evaluating Programs, including Follow-Up—

Factors Relating to Programs of National Significance

The Commissioner shall apply the following administrative review criteria for program and project applications.

- (a) The Commissioner shall award primarily contracts and in some cases grants.
- (b) The Commissioner shall not make a grant . . . unless the applicant can demonstrate a reasonable probability that such grant will result in improved teaching techniques or curriculum materials that will be used in a substantial number of classrooms or other learning situations within five years after the termination date of such grant.
- (c) The eligible applicants include all public and private and nonprofit and profit agencies, organizations, and institutions, and individuals.
- (d) The Commissioner may pay all or part of the costs.
- (e) The Commissioner may support a project for a period not to exceed three years.
- (f) A contract for an exemplary and innovative project shall, to the extent consistent with the number of students enrolled in nonprofit private schools in the area to be served whose educational needs are of the type which the project is to meet, provide for the participation of such students.

Coordinating Committee on Research in Vocational Education—HEW

Members

- Director, NIE
- Commissioner
- Director, Fund for Improvement of Postsecondary Education

Functions

- A. Develop a plan for each fiscal year:
 - Establish national priorities for the use of R&D funds available to these offices.
 - Coordinate the efforts of these offices in order to avoid duplication of efforts.
- B. Develop management information system on projects funded by these offices in order to achieve:
 - Best possible monitoring and evaluation
 - Wide dissemination of results

Sec. 171(a) (2) National Center

The Commissioner shall support, in addition to the projects of national significance, a National Center for Research in Vocational Education.

- (a) The National Center shall be a nonprofit agency.
- (b) The National Center shall be chosen once every five years.
- (c) The Commissioner shall appoint an advisory committee to advise the center.
- (d) The Commissioner, in consultation with the Center and its advisory committee, may establish regional research centers under contract with the National Center.
- (e) The National Center shall, either directly or through other public agencies:
 - (1) conduct applied research and development on problems of national significance in vocational education;
 - (2) provide leadership development through an advanced study center and inservice education activities for state and local leaders in vocational education;
 - (3) disseminate the results of the research and development projects funded by the center;
 - (4) develop and provide information to facilitate national planning and policy development in vocational education;
 - (5) act as a clearinghouse for information on contracts made by the states for research, exemplary and innovative programs, and curriculum development, and on contracts and grants made by the Commissioner pursuant to this subpart.

Department of Defense Instructional Material

The Commissioner shall make contracts to convert to use in local educational agencies . . . and other institutions . . . curriculum materials involving job preparation which have been prepared for use by the armed services of the United States.

Sec. 172 Training and Development Programs for Vocational Education Personnel

Provides for:

- (1) opportunities for experienced vocational educators to spend full time in advanced study . . . not to exceed three years in length;
- (2) opportunities for certified teachers in other fields to become vocational educators, if those teachers have skills and experience in vocational fields . . .;
- (3) opportunities for persons in industry who have skills and experience in vocational fields for which there is a need . . ., but who do not necessarily have baccalaureate degrees. . . .

APPENDIXES

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APPENDIX A

Conference Program

PROGRAM

Tuesday, February 22, 1977

7:00-8:30 p.m. **REGISTRATION** Lobby

Wednesday, February 23, 1977

Chairperson: Cedar Parr, Associate Commissioner
for Occupational Education and Technology,
Texas Education Agency

7:30-8:30 a.m. **REGISTRATION** Crystal Lounge

8:30 a.m. **WELCOME TO THE CONFERENCE** Crystal Ballroom

Robert E. Taylor, Director
The Center for Vocational Education

9:00 a.m. **EXPERIENTIAL LEARNING: SOME CHANGES
FOR THE FUTURE**

Eugene Dorr, Associate Director
State Board for Community Colleges of Arizona

9:45 a.m. **COFFEE BREAK**

10:15 a.m. **SYMPOSIUM: IMPLEMENTING EXPERIENTIAL
LEARNING**

Joyce D. Cook, Part D Program Coordinator,
U.S. Office of Education

David H. Hampson, Chief, Division of Career
Exploration, National Institute of Education

William F. Pierce, Acting U.S. Commissioner
of Education, U.S. Office of Education

Cedar Parr, Associate Commissioner
for Occupational Education and Technology,
Texas Education Agency

11:45 a.m. **LUNCH (Individually Arranged)**

1:15 p.m.	INTRODUCTION TO SMALL GROUPS	Crystal Ballroom
1:30-4:00 p.m. (2 Sessions)	PRESENTATION/DISCUSSION TOPICS	
1:30-2:30 p.m. and 3:00-4:00 p.m.	<ul style="list-style-type: none"> • Experiential learning: what should it look like in post-secondary education? 	Room 310
	<p>Michaelita Quinn, EBCE Program Director, Research for Better Schools, Inc.</p>	
	<ul style="list-style-type: none"> • Establishing standards for the award of academic credit, for projects conducted in the community 	Crystal Ballroom
	<p>Ralph Baker, Field Outreach Director, Far West Laboratory</p>	
	<ul style="list-style-type: none"> • Examining the legal implications of non-paid experiential learning 	Room 346
	<p>John Cook, Supervisor, Distributive Education, Cooperative and Work Study, West Virginia</p>	
	<ul style="list-style-type: none"> • Implementing Experience-Based Career Education, a network strategy 	Hereford Room
	<p>David H. Hampson, Chief, Division of Career Exploration, National Institute of Education</p>	
	<ul style="list-style-type: none"> • Meeting requirements for achieving sex-fair guidance and career opportunities 	Room 301
	<p>Shirley McCune, Director of Title IX Equity Workshops Project, Chief State School Officers Council</p>	
	<ul style="list-style-type: none"> • Preparing teachers for new kinds of industry-education cooperation 	Room 302
	<p>Virginia Thompson, Training Director, Northwest Regional Educational Laboratory</p>	
	<ul style="list-style-type: none"> • Increasing the value of community resource sites for experiential learning 	Room 306
	<p>Harold Henderson, EBCE Program Director, Appalachia Education Laboratory, Inc.</p>	
	<ul style="list-style-type: none"> • Using evaluative information to persuade others to try exemplary project results 	Room 305
	<p>Elvis Arterbury, Project Director, Partners in Career Education</p>	

2:30-3:00 p.m.	COFFEE BREAK	Area between Crystal Ballroom and Crystal Lounge
5:00 p.m.	ATTITUDE ADJUSTMENT HOUR	Crystal Ballroom
6:00 p.m.	ADJOURN	

Thursday, February 24, 1977

Chairperson: Darrell L. Parks, Assistant Director, Ohio Department of Education, Division of Vocational Education

8:00 a.m.	ANNOUNCEMENTS INTRODUCTION TO THURSDAY'S ACTIVITIES	Crystal Ballroom
8:15 a.m.	LINKING R&D WITH DISSEMINATION—THE ILLINOIS APPROACH	
	Ronald D. McCage, Director, Research & Development Section, Department of Adult, Vocational and Technical Education, Illinois Office of Education	
	Tom Boldrey, Project Director, Experience-Based Career Education, Joliet, Illinois	
9:00 a.m.	USING REGIONAL AGENCIES IN FLORIDA TO IMPLEMENT INNOVATIONS	
	Margaret Ferqueron, State Coordinator of Career Education and Program Administrator of Dissemination, Division of Vocational, Technical and Adult Education, Florida State Department of Education	
9:45 a.m.	COFFEE BREAK	
10:15 a.m.	SMALL GROUP MEETINGS BY STATES (Part D Coordinators in charge)	Individual Rooms
11:45 a.m.	LUNCH (Individually Arranged)	
1:15 p.m.	THE ROLE OF TEACHER EDUCATORS IN THE DISSEMINATION OF PART D PROJECTS	Crystal Ballroom
	Rutherford Lockette, Director of Vocational Education, University of Pittsburgh	

2:15-5:00 p.m.

SMALL GROUP MEETINGS BY USOE REGIONS
(For the purpose of refining state strategies
for disseminating Exemplary Project results)

(Coffee delivered
to rooms)

Region I	Angus Room
Region II	Room 306
Region III	Longhorn Room
Region IV	Hereford Room
Region V	Room 346
Region VI	Santa Gertrudis Room
Region VII	Room 301
Region VIII	Room 302
Region IX	Room 305
Region X	Room 310

6:00 p.m.

DINNER MEETING

Crystal Ballroom

Toastmaster: B. J. Stamps, Assistant
Superintendent, Instructional Services,
Dallas, Texas

DISSEMINATION OF PROJECT RESULTS
FROM ONE SCHOOL DISTRICT TO ANOTHER

Duane Lund, Superintendent of Schools,
Staples, Minnesota

8:00 p.m.

ADJOURN

Friday, February 25, 1977

Chairperson: Lawrence Braaten, Chief,
Demonstration Branch, U.S. Office of Education

7:45 a.m.

ANNOUNCEMENTS

Crystal Ballroom

8:00 a.m.

STRATEGIES FOR THE NATIONAL
DISSEMINATION OF PROJECT RESULTS

Joel H. Magisos, Associate Director
The Center for Vocational Education

9:00 a.m.

CONFERENCE EVALUATION

9:45 a.m.

COFFEE BREAK

10:15 a.m.

INCREASING THE IMPACT OF PART D
PROJECTS: NEXT STEPS

Hereford Room
Room 346
Room 302

Joyce D. Cook, Part D Program Coordinator,
U.S. Office of Education

11:30 a.m.

ADJOURN

APPENDIX B

List of Participants, Presenters, and Presiders

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